Drill Program on the
AOK PROJECT, B.C.

Omineca Mining Division
British Columbia

NTS 93-N-1

by J.A. Climie, P. Geologist

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REPORT ON THE 1991 DRILL PROGRAM

ON THE

AOK PROJECT, B.C.

Omineca Mining Division
British Columbia
NTS 93-N-1

Prepared for

TAKLA STAR RESOURCES LTD.

BY

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CALGARY, ALBERTA

NOVEMBER 1991

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GENERAL

Between September 16 and October 7, 1991, a diamond drill program was performed on the AOK Property, specifically the AOK 1 and 2 mineral claims, within the Omineca Mining Division, British Columbia. The claim group, held under option by Takla Star Resources Ltd., is located 17 km. SW of the world-class Mt. Milligan porphyry copper-gold deposit, and 85 km north by all-weather road from Ft. St. James.

A total of 1004.59 meters was drilled by contractor J.T. Thomas Drilling of Smithers, B.C. Drilling comprised 740.94 m of overburden and 263.65 m of NQ core.

RESULTS

Principal objective was to test the Main Anomaly for its porphyry copper-gold potential. This strong magnetic anomaly has coincident chargeability responses and heavy mineral dispersion trains (Zone 1) containing significant quantities of proximal gold grains.

Greater than anticipated overburden thickness prevented the three drill holes (91-01/02/09) from reaching bedrock and evaluating this target.

Four drill holes (91-03 to 06) were completed into bedrock on a secondary target; the Central Anomaly, a moderate-strong magnetic anomaly with an extensive associated chargeability response. The Zone 2 gold dispersion train is interpreted to have at least part of its source in structurally-controlled drainage systems on the SW flank of the Central Anomaly.

These holes intersected porphyritic plagioclase-augite andesitic breccias, minor tuff and massive flows, intruded by microgabbro dykes. Strong fracturing and shearing occur in the holes (91-03/06) drilled near the interpreted structures.

Alteration in the Central Anomaly is dominated by a strong propylitic assemblage with intervals of phyllic (91-03) and minor potassic (91-06) alteration. Sulfide content averages a little under 1% and consists dominantly of pyrite with minor chalcopyrite.

EXECUTIVE SUMMARY /....Continued

Copper content averages 100-200 ppm, with values to the 400 ppm level. No significant gold or silver were detected.

Drill hole 91-07, in the far SW extremity of the Main Anomaly, intersected similar andesitic breccia exhibiting strong propylitic alteration with a potassic overprint. Sulfides average 1%, and are dominated by pyrite, but with chalcopyrite more common than in other holes (to 1660 ppm copper).

CONCLUSIONS

Surface geochemical, geological and magnetic data, and alteration in drill hole 91-07 on its far SW periphery, are consistent with the Main Anomaly reflecting a porphyry alteration / mineralization system. However, overburden depths in excess of 100 m present exploration and economic limitations for this mineralization-type.

Alteration and mineralization associated with the Central Anomaly is consistent with the upper, or distal, parts of a porphyry system.

The geological setting of the AOK Property, the widespread propylitic alteration and heavy mineral gold dispersion trains containing significant quantities of proximal gold, some of which exhibits epithermal fracture-filling characteristics, point to the presence of structurally-controlled epithermal gold occurrences on the AOK Property. These are considered to constitute attractive exploration targets.

Although seasonal ground conditions prevented drill testing of the structural depressions, an increase in fracture intensity, alteration and sulfidization near these, as well as the spatial distribution of gold dispersion trains, suggests they may be source areas for the gold dispersion trains.

RECOMMENDATIONS

Further testing of structural targets is recommended. In addition, further evaluation of the Western and Southern Anomalies, and anomalous boulders and geochemical results in the NW of the property is recommended.

1. INTRODUCTION

This report describes the results of a diamond drill program carried out on the AOK Project during the fall of 1991. The AOK Project is situated within the Takla porphyry gold-copper belt, British Columbia, and is held under option by Takla Star Resources Ltd. of Edmonton Alberta.

The writer was commissioned by Mr. J.P. Stewart, President of Takla Star Resources, to supervise the program and report on results.

The drill program and related drill road construction, was carried out between September 16 and October 7, 1991.

The drill contractor was J.T. Thomas of Smithers, British Columbia. Analytical work was performed by Barringer Laboratories of Calgary, Alberta. R. Shaw, geologist, assisted the writer with core splitting and logging between September 30th and October 2nd.

A total of 1,004.59 meters of drilling was carried out in 9 holes. All coring was NQ diameter. Road construction comprised refurbishing 4 km of old, partially overgrown trail, and the construction of 2.7 km of new trail for drill access.

Objective of the drill program was to test targets defined by a summer exploration program. The drill targets were coincident I.P. chargeability - magnetic anomalies, and interpreted gold dispersion train sources, associated with the Main, Central and Southern Anomalies (Climie, 1991).

2. LOCATION, ACCESS AND PHYSIOGRAPHY

2.1. LOCATION AND ACCESS

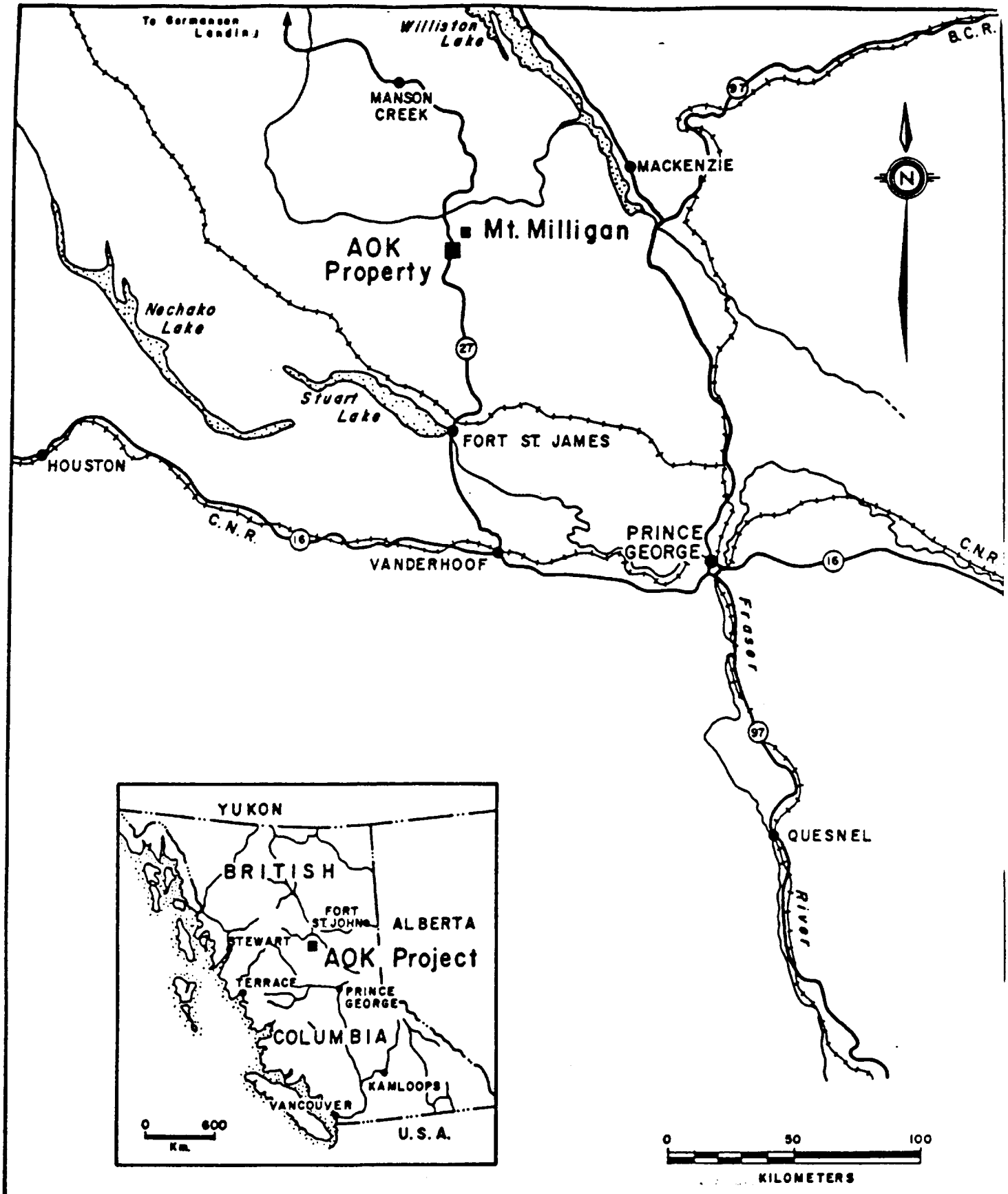
The centre of the AOK Property is situated at latitude 55 degrees 5 minutes north and longitude 124 degrees 12 minutes west. It lies within the Omineca Mining Division of B.C., approximately 85 km north by road from Ft. St. James.

Ft. St. James, which is 165 km by paved highway west-northwest of Prince George, is the principal town in the area and provides good infrastructure and services, including a B.C. government agent. It is anticipated that Ft. St. James will form the logistical base for the development and operation of the projected Mt. Milligan Mine, 17 km northeast of the AOK Property.

The AOK Property is accessed by the all-season Germansen Landing Highway (or Manson Creek Road) extending north from Ft. St. James and which traverses the east part of the claim group (see Figure 1.) An abandoned old section of the road, west of Wittsichica Creek, was partially refurbished to provide drill access to the property.

2.2. PHYSIOGRAPHY

The area of interest is situated within topographic sheet NTS 93-N-1 and occupies a broad, north to south-trending valley, in the southern part of the



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TAKLA STAR

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RESOURCES LTD.

DRAWN BY: M.A.P.	SCALE:
DATE: Sept., 1991	FIGURE: 1

Webberly Lake Valley. It is flanked by the Mt. Milligan Range to the east and the Wittsichica Lake Hills to the west.

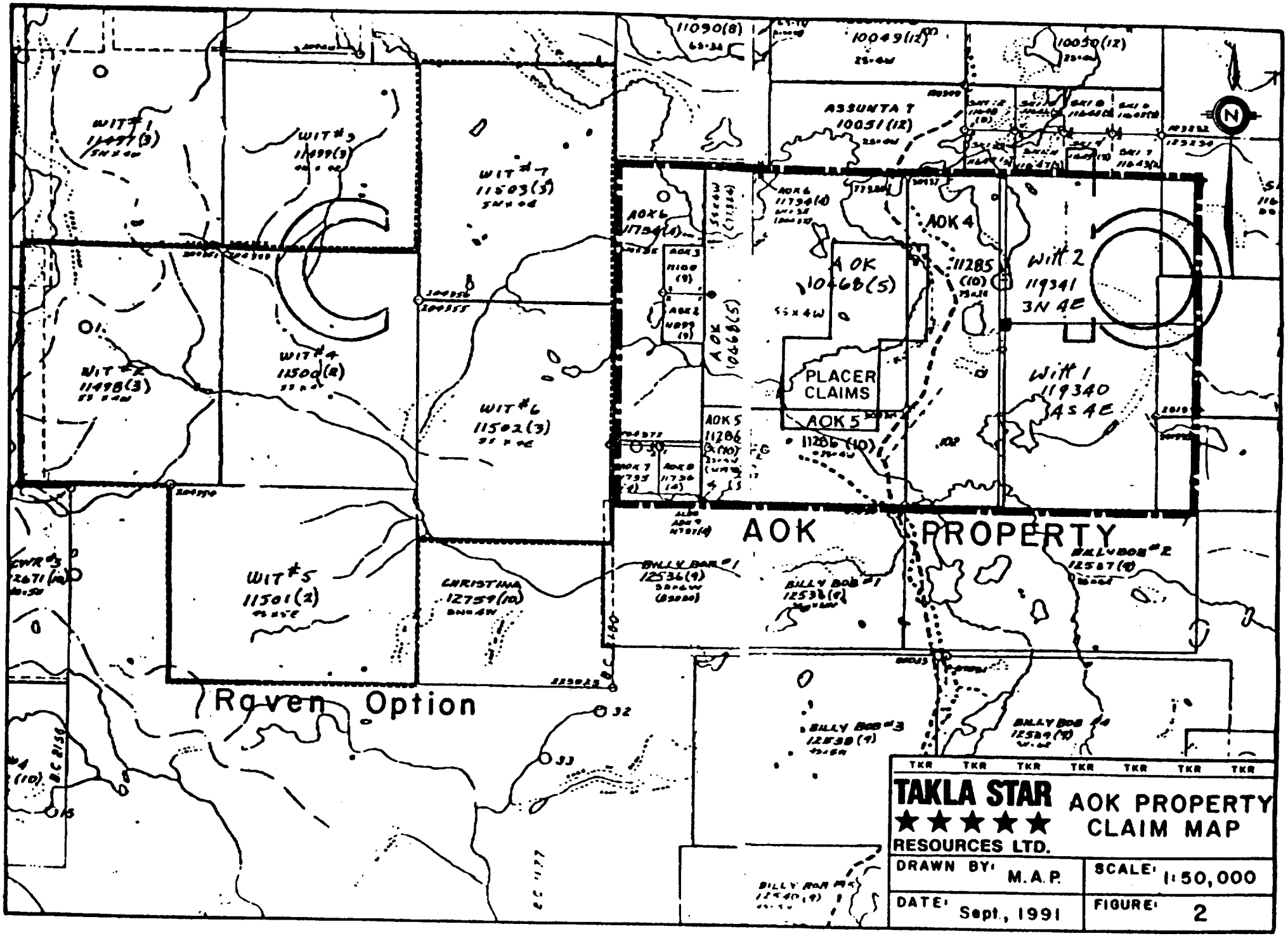
The claims are within a broad plateau of low relief, with elevations ranging from approximately 950-970 meters above sea level. The maximum local relief is encountered along the steep banks of Wittsichica Creek and on eskers.

Wittsichica Creek is an underfit, sinuous creek occupying a broad marshy valley floor, 50-120 metres wide, meandering through the eastern and northern parts of the property. It drains into Chuchi Lake, 13 km to the northwest.

The entire property is below tree line. Vegetation consists of three main types:

- *swamp and marsh grasses and alders occupying the Wittsichica Creek meander belt, minor drainage systems and low-lying depressions;*
- *open Lodgepole pine forest, with minor spruce, occupying well drained, dry sandy soils developed on fluvial and fluvioglacial glacial material in the eastern half of the property;*
- *heavier spruce and fir forest, with minor pine, occupying less well-drained soils developed on till, predominantly in the western half of the property.*

Due to the low relief and excellent road access, exploration can be performed year-round. Heavy winter snow cover necessitates Cat, or other tracked vehicle, support for winter mobility within the property itself.


AOK PROPERTY
PLACER CLAIMS
AOK 5
AOK 4
AOK 6
AOK 3
AOK 2
AOK 7
AOK 8
AOK 10468(5)
AOK 11734(4)
AOK 11100(9)
AOK 11285(10)
AOK 11286(10)
AOK 11734(4)
WIT 1 11497(3)
WIT #2 11498(3)
WIT #3 11499(3)
WIT #4 11500(2)
WIT #5 11501(2)
WIT #6 11502(3)
WIT #7 11503(3)
WIT 2 11934 3N 4E
WIT 1 11934 4S 4E
11090(8)
10049(12)
10050(12)
ASSUNTA 1 10051(12)
CHRISTINA 12759(10)
BILLY BOB #1 12534(9)
BILLY BOB #2 12537(9)
BILLY BOB #3 12538(9)
Raven Option
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AOK PROPERTY CLAIM MAP
DRAWN BY: M.A.P.
SCALE: 1:50,000
DATE: Sept., 1991
FIGURE: 2

TABLE 1

AOK PROPERTY CLAIM DATA

Mineral Claim	Units	Record No.	Record Date	Expiry Date
AOK #1	20	10468	05/16/89	05/17/93
AOK #2	1	11099	09/11/89	05/17/93
AOK #3	1	11100	09/11/89	05/17/93
AOK #4	14	11285	10/23/89	05/17/93
AOK #5	8	11286	10/24/89	05/17/93
AOK #6	18	11734	04/05/90	04/06/92
AOK #7	1	11735	04/05/90	04/06/92
AOK #8	1	11736	04/05/90	04/06/92
AOK #9	1	11737	04/05/90	04/06/92
WITT #1	16	119340	06/19/91	06/20/92
WITT #2	12	119341	06/19/91	06/20/92

Placer Claim	Units	Record No.	Record Date	Expiry Date
WIT #1	-	427	0115/91	01/16/92
WIT #2	-	428	01/15/91	01/16/92
WIT #3	-	429	01/15/91	01/16/92
WIT #4	-	430	01/16/91	01/17/92
WIT #5	-	431	01/16/91	01/17/92

4. REGIONAL GEOLOGY

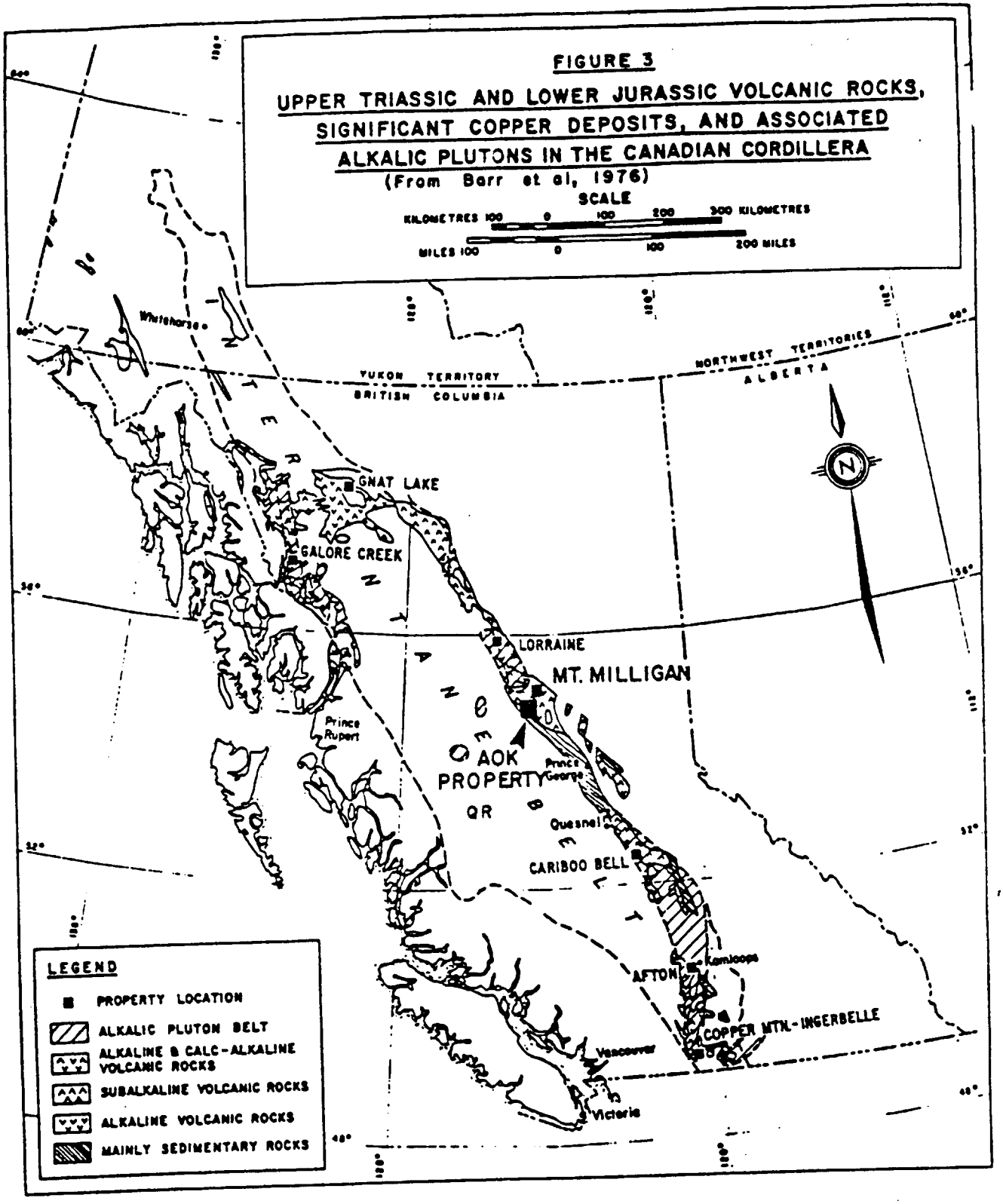
4.1 REGIONAL GEOLOGICAL SETTING

The AOK Property lies within the regionally extensive early Mesozoic Quesnel Trough in the Intermontane Zone of British Columbia. The Quesnel Trough is a stratigraphically and structurally defined belt extending 1,200 km northwesterly from the United States border to northern British Columbia (Figure 3). It includes equivalent rocks of the Upper Triassic to Lower Jurassic, Takla, Nicola and Stuhini groups, consisting of sediments and volcanic assemblages intruded by coeval and comagmatic plutons (Mortimer, 1986).

The volcanic assemblages have a wide range of chemical compositions and include alkaline, sub-alkaline and calc-alkaline rocks.

The area covering the AOK Property is part of the northern Quesnel Trough and comprises Takla Group rocks of mixed alkaline and calc-alkaline volcanics and intrusives (Figure 3).

The plutons, which are of economic importance due to their association with porphyry copper-gold deposits, have identical chemical compositions to the host volcanic rocks. The plutons were emplaced in volcanic centres from which most of the adjacent volcanics were derived. Plutons are associated with linear structures of regional extent. They range from small plugs and stocks, from metres to hundreds of meters in extent, to small batholiths.



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QUESNEL TROUGH

DRAWN BY: M.A.P.	SCALE: See above
DATE: Sept., 1991	FIGURE: 3

4.2 LOCAL GEOLOGICAL SETTING

The term "local geological setting" is used for that part of the northern Quesnel Trough covering the Mt. Milligan/AOK Property area. Due to the economic interest of the Takla Group rocks in this area, the Geological Survey branch of the B.C. Ministry of Energy, Mines and Petroleum Resources is currently carrying out 1:50,000 scale geological mapping of NTS sheets 93-N-1 and 93-K-16. Preliminary results have been released in Open File 1991-3 (Nelson et al., 1991).

In this area, the Takla Group is bounded to the west by deformed and uplifted Permian Cache Creek Group rocks which are separated from the Takla Group by the Pinchi fault zone.

To the east, the Manson fault zone separates the Takla rocks from the uplifted Proterozoic/early Paleozoic Wolverine metamorphic complex and the Mississippian/Permian Slide Mountain Group (Faulkner et al., 1989).

The principal Takla Group volcanic units in the Mt. Milligan/AOK area are the Chuchi and Witch Lake formations (Nelson et al 1991). These are dominated by a thick (several km) sequence of augite and plagioclase-rich porphyritic flows and agglomerates (breccias), dominantly of basaltic composition. Lesser trachyte and interbedded sediments are present.

Nelson et al (1991) consider the predominantly dark green volcanic rocks of the Witch Lake Formation to be marine volcanics and the Chuchi Lake Formation, which are dark green and maroon mottled, to be areal, shallow water or sub-areal. The heterolithic agglomerates which are abundant in both formations, are variously described as pyroclastics, volcanic breccias or lahars by different authors.

Nelson (1991, Ft. St. James conference) notes that the augite-rich porphyries denote centres of crustal thickening, greater magma generation, emplacement of the economically productive stocks and formation of coeval porphyry copper-gold deposits.

Abundant, comagmatic stocks, plugs and dykes intrude the Witch and Chuchi Lake volcanics. Intrusions range from gabbro to syenite, but are dominated by monzonite and diorite porphyries.

Nelson et al (1991) map a broad, 4 to 8 km wide northwest-trending belt, encompassing the AOK Property, as Chuchi Lake Formation. Outcrop in this lowland area is extremely sparse and underlying geology is highly conjectural.

An Eocene graben, containing basalt and sediments, is mapped several km northeast of the AOK Property. Another Eocene basin is mapped immediately adjacent to, and east of, the Mt. Milligan deposit.

Nelson (1991) indicates that the predominant structural and stratigraphic trends are northwest to southeast. Struik (1991, Fort St. James conference) notes that several generations of Tertiary faulting were dominated by dextral strike-slip movement along major northerly and northwesterly-trending transforms which resulted in the formation of pull-apart systems, unroofing of the Wolverine metamorphic complex and development of Eocene basins filled by sediments and basalt.

Nelson (pers comm) considers regional metamorphic grade to be greenschist facies to the east of the north to northwesterly-trending structural depression traversed by the Ft. St. James - Germansen Highway. West of this structural zone, Nelson considers metamorphic grade to be zeolite facies.

4.2 ECONOMIC GEOLOGY

The Quesnel Trough, and especially the northern part in the vicinity of Mt. Milligan, is undergoing intensive exploration for a unique class of porphyry mineral deposit; the alkaline suite porphyry deposit (Barr et al., 1976). Barr notes that these constitute an important class of porphyry copper deposit in the Canadian Cordillera and are quite unlike porphyry deposits associated with calc-alkaline intrusions. Porphyry deposits of the alkaline suite, commonly grade into pyrometasomatic or skarn deposits. They are low-sulfide systems, lacking appreciable molybdenum, contain abundant magnetite and usually contain economically important quantities of gold and silver. They are invariably associated with small, complex, alkaline plutons of monzonitic to

dioritic composition which are derived from larger, deeper seated diorite to gabbro intrusions. The alkaline plutons intrude comagmatic volcanic rocks.

Alkali versus silica plots for plutons and volcanics of the alkaline suite show marked alkali enrichment relative to silica (Barr, 1976). Most of the plutons and enclosing volcanic rocks, belong to the potassic suite and are frequently shoshonitic.

Hydrothermal alteration in akaline suite deposits is dominated by extensive biotite, potassium-feldspar formation, and albite closer to the mineralizing stocks, with a broad fringe of propylitic alteration. Quartz veining is rare or absent (Faulkner et al., 1989).

Productive alkaline suite porphyry systems appear to have been emplaced and evolved in active structural zones, progressing from an earlier structural level of several km depth to a sub-volcanic level of only several hundred metres depth in the final stages. The porphyry stocks of alkaline suite systems invariably contain bodies of explosion breccia which commonly exhibit evidence of multiple stages of brecciation and mineralization. Intrusive offshoots and fragments of the porphyry stocks are also commonly found in the volcanic rocks hosting or surrounding the porphyry deposits indicating that the intrusive system vented through and invaded its own earlier volcanic products during this evolution (Faulkner et al., 1989).

Figure 3 shows the distribution of significant porphyry copper-gold deposits and related alkaline intrusions within the Quesnel Trough (after Barr et al., 1976). The more important deposits and mines include Copper Mountain, Afton, Caribou Bell, Lorraine, Gnat Lake, Galore Creek and the more recently discovered Mt. Milligan deposit. Collectively, these deposits contain (past production plus reserves) in excess of 1 billion tonnes of copper, gold and silver mineralization, a significant part of Canada's mineral inventory.

The immediate area of interest, in the northern part of Quesnel Trough, contains the largest of these alkaline suite deposits, Placer Dome's Mt. Milligan deposit, 17 km northeast of the AOK property. Associated with a large magnetic anomaly, Mt. Milligan is unusual in its large areal extent of alteration, mineralized systems, high gold content and lower copper content than average (Faulkner et al., 1989).

Quoted reserves of Mt. Milligan are 440 Million tonnes of ore within two deposits; the Mt. Milligan and Southern Star deposits.

Current engineering and feasibility work is focusing on the Mt. Milligan deposit, which itself includes several zones, principal of which are the MBX and 66 Zones. The Northern Miner (March 12, 1990) quoted reserves of the Mt. Milligan deposit as 220 million tonnes grading 0.23% copper and 0.019 ozs. per tonne gold (0.9% copper equivalent). Other zones at Mt. Milligan are currently being explored.

Other significant prospects undergoing evaluation within 40 km of the AOK Property, include the Tas, Col and Chuchi prospects. All are associated with magnetic anomalies which form the principal exploration guide.

5. HISTORY OF THE PROPERTY

5.1. PRE-1991 EXPLORATION

Old claim lines, dated in the early 70's, in the western part of the AOK claim group, testify to some exploration attention, presumably for porphyry copper mineralization, during that time. However, no work was recorded.

In May, 1989, the AOK No. 1 claim was staked by Valley Gold Ltd., to cover an airborne magnetic anomaly defined by a 1961 geological survey of Canada airborne magnetic survey (Map 1584 G).

During the fall of 1989, Valley Gold, in conjunction with Noranda Exploration, carried out a program of gridding and soil geochemistry (Bale and Day, 1990). A broad gold anomaly, approximately 1,000 meters by 800 meters in extent, was defined on the southeastern periphery of the aeromagnetic anomaly. A subdued copper anomaly was associated with the gold. Also in the fall of 1989, Noranda Exploration performed a ground magnetic survey, confirming and better-defining the aeromagnetic anomaly (Bale and Day, 1990).

Further fill-in and conformation soil sampling was carried out by Corona Corporation in 1990 (Dean, 1991).

In a statistical analysis of all available geochemical data, Dean (1991) reported the following results for gold and copper:

	GOLD		COPPER	
No. of samples	717		648	
Minimum value	1	ppb	8	ppm
Maximum value	1170	ppb	200	ppm
Mean	46.9	ppb	31.1.	ppm
86th percentile > or =	50	ppb	37	ppm
90th percentile > or =	95	ppb	40	ppm
99th percentile > or =	550	ppb	70	ppm

Dean, (1991) noted that contours of the 50 ppb gold outlined some 7 elongated anomalous highs trending northeasterly. Dean further noted that the high gold values indicated placer gold, probably derived from a source to the southeast.

Binocular microscope and EDA analyses studies of gold grains picked from heavy mineral concentrates panned from several pits by Noranda, were undertaken by M.W. Milner. In a draft report dated February, 1991, Milner noted that most of the grains display an angular to wiry shape, and contain

gangue minerals and a low silver content, indicating a proximal source with an estimated travel distance of 500 meters to 1,000 meters. In addition, Milner noted the presence of cinnabar and platinum grains. Based on an air photo interpretation (February, 1991) Milner considered that the heavy mineral samples were collected from dead-ice moraine as well as fluvial point bar systems. From a review of magnetic data, Milner (February, 1991) considered the magnetic anomaly reflected *relatively shallow magnetic rock and possibly related magnetic overburden near it.* He suggested bedrock depths of *less than 30 meters* and proposed that source of the gold was on the southwestern flank of the magnetic feature.

During the late summer of 1990, Dr. B. Ballantyne, of the Geological Survey of Canada, collected several samples from pits within the original soil geochemical anomaly. Heavy mineral studies on these indicated that both proximal and distal gold and native copper was present. Ballantyne also identified a gold palladium alloy, chalcopyrite, copper halides and zinc carbonate.

5.2. 1991 SUMMER EXPLORATION PROGRAM

Between mid-May and mid-August, 1991, an integrated geological-geophysical-geochemical exploration program was performed on the AOK 1-9 claims. Results of this work have been fully reported on by Climie (1991).

The program consisted of gridding, detailed Quaternary geological mapping, detailed boulder mapping and prospecting, semi-detailed heavy-mineral sampling, petrographic studies and a geophysical program. The geophysical program consisted of 81.5 km of total fisld magnetic and vertical magnetic gradiometer surveying and 18.3 km of induced polarization coverage.

Quaternary geology was found to be extremely complex and consist of lodgement till, kame and kettle, fluvioglacial, fluvial and organic swamp terrains. The western two-thirds of the property is dominated by high-clay lodgement till, with streamlined forms, as well as significant fluvioglacial esker complexes. To the east of the baseline (5,000 E), and in the area of the Main Anomaly, surficial geology is more complex and consists of kame and kettle terrain, interpreted as modified ablation till, a till outlier, a fluvioglacial sand outwash plain, younger fluvial point bar systems and organic-dominated drainage systems and depressions. It was concluded that this complexity had important implications on the application and interpretation of geochemical exploration techniques.

Latest ice direction was determined to be from the southwest to the northeast.

Detailed mapping of the limited outcrop and abundant boulders, indicated the property, in common with Mt. Milligan and other important prospects in the northern Quesnel Trough, is underlain by upper Triassic-lower Jurassic Takla Group volcanics and coeval intrusives. Dominant volcanic is andesite (to basaltic?) heterolithic breccia, while intrusions range from gabbro, through diorite to quartz monzonite. Intrusive material was seen in boulders only.

Dominant faulting directions were interpreted to be northwest-southeast and northeast-southwest, with a lesser east-west component.

Most rocks (boulders and outcrop) on the property were found to be hydrothermally altered. Dominant alteration is a propylitic assemblage of moderate intensity. However, significant numbers of boulders exhibit phyllic / sericitic and potassic alteration. Sulfidization accompanies the alteration with total sulfides varying from trace to greater than 8%. Dominant sulfide is pyrite with lesser pyrrhotite and minor, but significant, chalcopyrite. Copper values are commonly in the several hundred ppm range (to over 1,000 ppm) where sulfide content is greater than 2%. No significant associated gold values were detected in rock samples.

The detailed ground magnetic survey defined four discrete, magnetic highs termed the Main, Central, Southern and Western Anomalies (see Figure 4). Since intrusive boulders on the property are moderately to strongly magnetic, the magnetic highs were interpreted as volcanic / intrusive centres, which were also interpreted as centres of hydrothermal alteration (Climie, 1991).

The induced polarization survey defined an extensive, moderate-intensity chargeability anomaly associated with, and flanking, the Central Anomaly (Figure 4). Lesser chargeability anomalies are associated with the Main and Southern Anomalies. The chargeability anomalies were interpreted as areas of enhanced sulfide content.

The heavy mineral sampling program defined the presence of significant quantities of proximal gold grains within lodgement till on the property. The proximal gold consists of electrum, supergene gold and normal gold and was interpreted by Milner (1991) to be clearly distinct from the population of far-travelled, regional gold. Estimated travel distance for the proximal gold was from a few hundred meters, or less, to a kilometer. At least five separate dispersion trains were partially defined, four of which were interpreted to have their source in proximity to the Main, Central, Western and Southern Anomalies (Climie, 1991).

Heavy mineral assemblages suggested that an epithermal electrum-cinnabar association occurs peripheral to higher temperature, normal gold - pyrite mineralization and that these have undergone pre-glacial weathering and supergene modification (Climie, 1991).

Based on evidence from vertical gradient magnetic data, and depth to source calculations by two independent geophysical consultants, (Lloyd, 1991 and Candy, 1991) overburden depth over the Main and Central Anomalies was estimated to be relatively shallow, from 20 to 50 meters, gradually increasing in thickness to the south and east.

A phase 1 diamond drill program was recommended to test coincident chargeability-magnetic anomalies, and interprated gold diapersion train sources, associated with the Main, Central and Southern Anomalies.

6. ROAD CONSTRUCTION

To provide drill access, sections of an old, abandoned part of the Germansen Highway, west of Wittsichica Creek, were refurbished. Use of this partially overgrown trail was maximized to restrict environmental damage as far as possible. Most of the forest traversed is relatively light Lodgepole pine, with lesser sections of heavier spruce.

A total of 4 km of existing trail was refurbished and 2.7 km of new trail was constructed for drill access.

Figure 4 shows the location of the refurbished and newly constructed drill access roads.

This work was performed under a B.C. Forest Service Free Use Permit. The drilling contractor, J.T. Thomas, carried out the road construction utilizing a D-6 Caterpillar.

Slashing, bucking and general clean-up work was carried out by a Ft. St. James forestry contractor, F. Hamel and an assistant. Approximately 10 man-days were spent on this work.

7. DRILL PROGRAM AND RESULTS

7.1. GENERAL

Drill contractor was J.T. Thomas of Smithers, British Columbia. The drill crews mobilized to the area on September 16 and demobilized on October 1, 1991.

For logistical reasons, Ft. St. James was chosen as operational base in preference to constructing a field camp for the relatively small program. The Germansen Highway was utilized to provide ready access to the drill sites (approximately 1 hour). Two shifts were operated.

Drill statistics appear in Table 2 and in drill data sheets (Appendix 1).

A total of 1,004.59 m were drilled which included 740.94 m of overburden and 263.65 m of NQ core.

Drill core was transported back to Ft. St. James and logged and split at a rented facility. All drill core is stored at the premises of New Caledonia Hardware in Ft. St. James.

TABLE 2

DRILL HOLE STATISTICS

Drill Hole Number	Disposition	Coordinates		Thickness of Overburden (m)	Total Depth (m)	Bedrock Cored (m)
91-01	AOK 1	4400N	5425E	134.11	134.11	-
91-02	AOK 1	4400N	5150E	91.44	91.44	-
91-03	AOK 1	3525N	3910E	49.37	128.93	79.56
91-04	AOK 2	3800N	3915E	42.67	97.53	54.86
91-05	AOK 2	4000N	3835E	50.29	91.44	41.15
91-06	AOK 1	3600N	3670E	52.42	96.31	43.89
91-07	AOK 1	3950N	4650E	120.39	155.44	35.05
91-08	AOK 1	4400N	4585E	53.34	62.48	9.14
91-09	AOK 1	4700N	5200E	146.91	146.91	-
		TOTALS		**740.94**	**1004.59**	**263.65**

7.2. OBJECTIVES AND DRILL TARGETS

Figure 4 is a 1:5,000 compilation which summarizes the most significant geophysical, geochemical and geological data from the summer program, as well as the location of all drill holes completed.

Two independent depth to magnetic source calculations by Lloyd Geophysics and Frontier Geoscience suggested relatively shallow overburden. Lloyd (1991) suggested thicknesses in the order of 20 m over the Main and Central Anomalies whereas Candy (1991) suggested 25-40 meters for the former and 40-50 meters for the latter.

The principal objective of the drill program was to test the Main Magnetic Anomaly (Figure 4), coincident chargeability responses and associated gold dispersion anomalies (Zone 1), for the area's porphyry gold-copper potential. The Main Magnetic Anomaly is strong, extensive, and consistent with magnetic responses with which important porphyry gold-copper prospects and deposits are associated elsewhere in the Quesnel Trough.

The chargeability responses associated with the Main Anomaly are somewhat restricted in extent and of moderate intensity (6-8 milliseconds versus a background of 2 milliseconds.

An extensive gold dispersion train is associated with the Main Anomaly. Milner (1991) noted the presence of significant quantities of proximal gold grains,

associated with abundant magnetite, in this train (Zone 1 - Figure 4). Based on size, morphology, wear, gangue minerals and surface silver content, transport distance was estimated by Milner (1991) to be only several hundred meters, and less than a kilometer.

The Central Anomaly constituted a secondary target. This moderate-strong magnetic anomaly has an extensive associated, and flanking, chargeability response (greater than 8.5 milliseconds).

A heavy mineral gold dispersion train, extending downice (to the northeast), containing significant quantities of proximal gold is interpreted by Milner (1991) to have at least part of its source in a major swampy, structural depression immediately south of the Central Anomaly (Figure 4). Overburden depth was interpreted to be shallower than over the Main Anomaly (Climie, 1991).

Depending on results of initial drilling, it was planned to test the Southern Anomaly, where a magnetic high has a coincident chargeability response and proximal gold was detected in heavy mineral samples downice. However, overburden was interpreted to be deeper here (Candy, 1991).

While the primary target was originally porphyry gold-copper mineralization, the great preponderance of gold over copper detected in geochemical sampling, both in soil samples and heavy mineral concentrates, suggested the main target on the AOK property might be a gold-only porphyry system and/or epithermal gold mineralization. Indications of a lower-temperature mineral

association (electrum and cinnabar) and some evidence of structurally-controlled gold (striations interpreted as slickenside pseudomorphs) lent support to the latter setting.

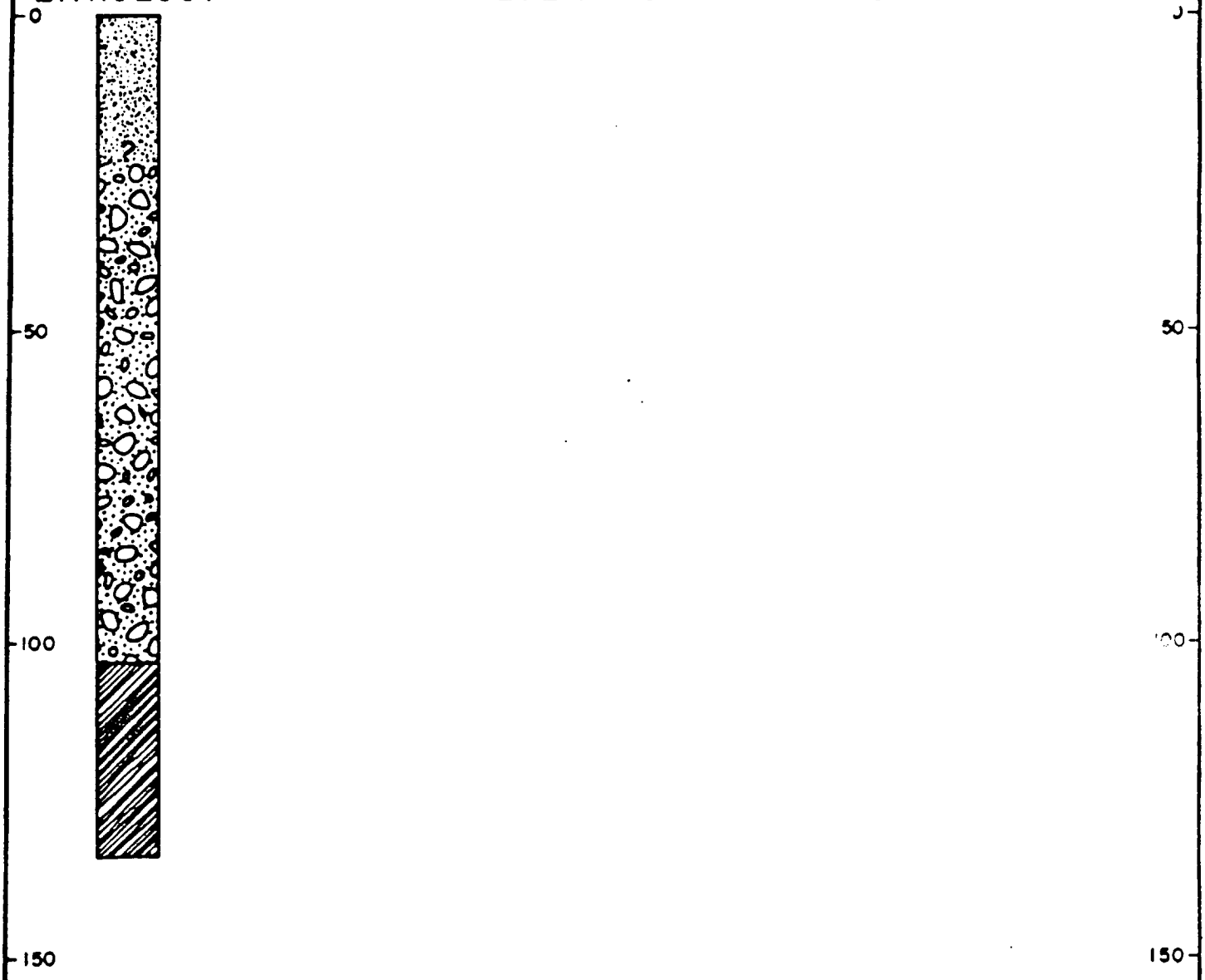
Following is a summary description of the individual drill targets and drill results.

Drill sections, illustrating principal lithologioal, alteration and structural features appear at 1:1,000 scale in Figures 5 to 13. Detailed drill logs appear in Appendix 1. A tabulation of analytical results for each drill hole appears in Table 3, and a full listing of analytical results from Barringer Laboratories of Calgary appears in Appendix 2.

7.3. DRILL HOLE 91-01

Target

Hole 91-01 was targeted to test one of the highest magnetic responses within the Main Anomaly. It was also collared above one of the strongest chargeability responses as determined from chargeability pseudosections at n=4. It should be noted that n=4 pseudosections were utilized to determine optimum chargeability responses rather than the shallower-sourced n=3 data portrayed in plan form by Frontier Geoscience (and shown in Figure 4).



LEGEND

- Sandy
- Boulder till } Overburden
- Massive clay
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate } Fracturing
- Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-01

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 4400N, 5425 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 5

Lithology

The drill hole intersected only overburden and was abandoned at 134.11 meters (Figure 5). Overburden was dominantly boulder-clay till, passing into massive grey clay at 103.63, which extended to the end of the hole (EOH) (Figure 5).

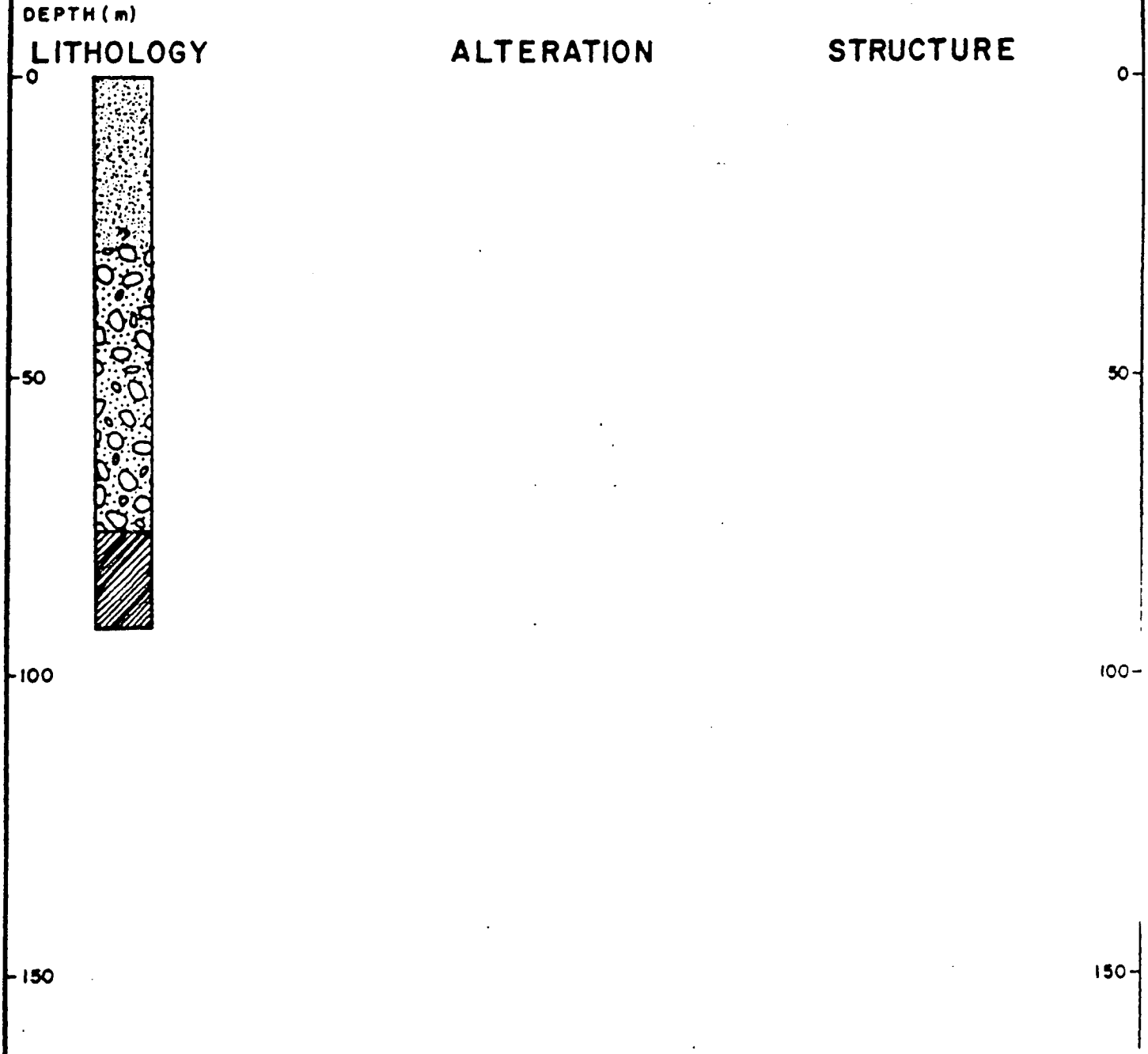
7.4. DRILL HOLE 91-02

Target

Hole 91-02 was spotted several hundred meters west of 91-01, in the direction of interpreted overburden thinning (Candy, 1991). It was collared on the western flank of the Main Magnetic Anomaly, over an enhanced n=4 chargeability response, and also in proximity to the upice boundary of the Zone 1 gold dispersion train (Figure 4).

Lithology

The drill hole was abandoned at 91.44 meters, also in overburden (Figure 6). The massive grey-clay was encountered at 76 meters and continued to EOH.



LEGEND

- Sandy
- Boulder till } Overburden
- Massive clay
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate } Fracturing
- Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-02

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 4400 N, 5150 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 6

7.5 DRILL HOLE 91-03

Target

Due to the major concerns with the unexpected depth of overburden over the principal target, hole 91-03 was completed in the Central Anomaly, where magnetic evidence indicated shallower overburden.

The hole was targeted on the western flanks of the Central Magnetic Anomaly, in proximity to an extensive chargeability response; but its primary objective was to test the interpreted head of the Zone 2 gold dispersion train. The hole was collared as close as ground conditions would allow to the swampy linear (Figure 4). However, it could be collared no closer than 60-100 meters from the axis of this interpreted structural depression.

Lithology

Hole 91-03 intersected bedrock at 49.37 meters (Figure 7). Bedrock consists dominantly of a fine-grained, strongly porphyritic (augite and plagioclase) andesite breccia, a coarser-textured phase of the andesite breccia, and a narrow andesitic dyke. The sparsely distributed clasts are textural and compositional variants of augite-plagioclase andesitic porphyries.

Structure

The bedrock is very strongly fractured, with fracture frequency commonly exceeding 200 per meter. With increasing fracture frequency, fracturing grades to chloritic shears and gouge zones.

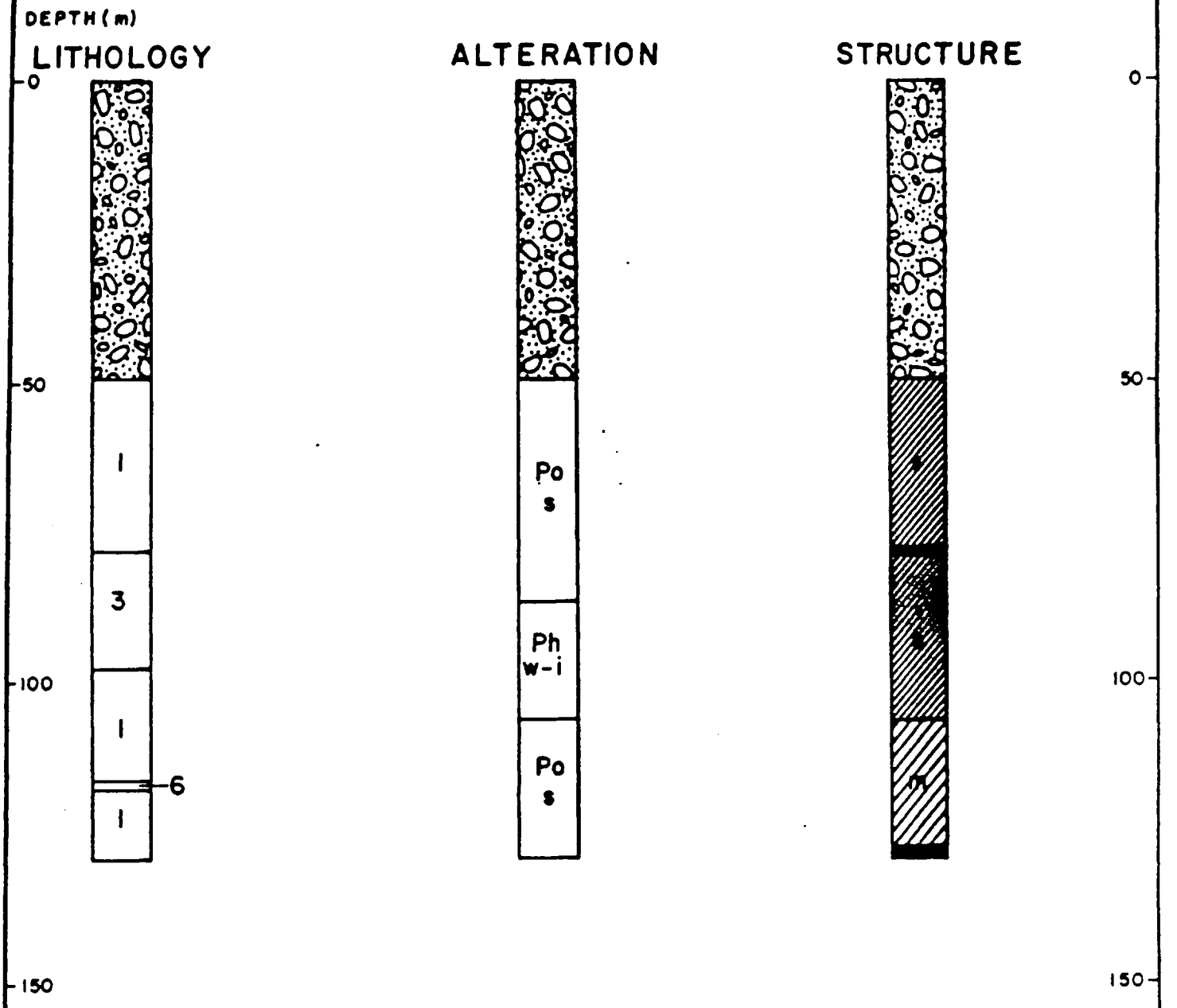
Alteration

From the top of bedrock to 86.80 meters, the andesite exhibits strong propylitic alteration, manifested by a chlorite-tremolite-epidote-pumpellyite-carbonate-phrenite-sericite-sulfide-magnetite assemblage. Phenocrysts and interclast and intraclast matrices exhibit varying intensities of alteration throughout the core; overall intensity is strong.

From 86.80 to 106.40 meters the andesite exhibits phyllic alteration. Intensity varies from weak to intense. The zone of phyllic alteration is manifested by a light-grey, "bleached" colour and is characterized by abundant sericite, more extensive sulfidization, some quartz veining and magnetite destruction.

The phyllic zone passes back into a strong propylitic alteration assemblage at 106.40 meters as described above.

Throughout hole 91-03, the high-frequency fractures are infilled with calcite, epidote, chlorite and sulfide.



LEGEND

- Sandy
- Boulder till — Overburden
- Massive clay
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate — Fracturing
- Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-03

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 3575 N, 3910 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 7

Mineralization

Within the propylitic zones, sulfide content averages 0.5 - 0.7 %, and in the phyllic zone, a little over 1%. Sulfides occur as fine disseminations, coarser blebs and as veinlets.

Dominant sulfide is pyrite, with minor chalcopyrite. Much of 91-03 was split and analyzed. Samples were analyzed for gold, copper and silver. Results appear in Table 3.

Copper values range from 61 to 400 ppm, averaging 159 ppm. No significant increase of copper values is seen in the phyllic alteration zone relative to the propylitic zone. Gold and silver values are background.

7.6. DRILL HOLE 91-04

Target

Objective of hole 91-04 was to test the more central part of the Central Magnetic Anomaly, and also one of the areas of strongest chargeability response (as determined from n=4 pseudosections).

ANALYTICAL RESULTS

DRILL HOLE NUMBER 91-03

Sample Number	From (m)	To (m)	Interval (m)	Gold (ppb)	Silver (ppm)	Copper (ppm)
13977	49.37	51.87	2.50	3.0	0.05	237.0
13927	51.87	54.31	2.44	<2.0	<0.02	119.0
13866	54.31	56.81	2.50	<2.0	0.02	87.0
13867	56.81	58.28	1.47	<2.0	0.12	196.0
13868	58.28	59.75	1.47	<2.0	0.05	114.0
13860	59.75	60.23	0.48	<2.0	0.03	400.0
13869	60.23	62.73	2.50	<2.0	0.02	120.0
38870	62.73	64.50	1.77	2.0	0.04	135.0
13859	64.50	66.07	1.57	<2.0	0.10	171.0
13871	66.07	68.57	2.50	2.0	0.13	171.0
13872	68.57	71.07	2.50	4.0	0.12	98.0
13873	71.07	73.57	2.50	<2.0	0.05	132.0
13874	73.57	75.50	1.93	<2.0	0.13	174.0
13875	75.50	76.95	1.45	3.0	0.18	344.0
13858	76.95	77.24	0.29	8.0	0.12	264.0
13978	77.24	78.55	1.31	2.0	0.13	151.0
13979	78.55	78.60	0.05	2.0	0.7	283.0
13987	78.60	81.10	2.50	<2.0	0.17	180.0
13988	81.10	83.60	2.50	<2.0	0.12	187.0
13989	83.60	84.77	1.17	<2.0	0.09	129.0
13856	84.77	85.60	0.83	4.0	0.04	138.0
13857	85.60	86.86	1.26	3.0	0.09	160.0
13980	86.86	88.08	1.22	<2.0	0.02	103.0
13987	88.08	88.48	0.40	<2.0	1.0	271.0
13982	88.48	89.14	0.66	3.0	0.15	198.0

DRILL HOLE NUMBER 91-03 ....Continued

13983	89.14	90.14	1.00	2.0	0.14	122.0
13984	90.14	91.44	1.30	2.0	0.09	143.0
13851	91.44	92.44	1.00	2.0	<0.02	61.0
13852	92.44	93.85	1.41	3.0	0.02	92.0
13990	93.85	94.35	0.50	<2.0	0.06	106.0
13853	94.35	95.16	0.81	5.0	0.02	87.0
13861	95.16	97.53	2.37	3.0	0.03	97.0
13862	97.53	99.32	1.79	<2.0	0.02	114.0
13991	99.32	101.82	2.50	<2.0	0.08	185.0
13992	101.82	103.18	1.36	<2.0	0.02	125.0
13985	103.18	104.18	1.0	3.0	0.14	250.0
13986	104.18	105.18	1.0	2.0	0.26	273.0
13854	105.18	105.83	0.65	7.00	0.21	230.0
13855	105.83	106.68	0.85	2.0	0.02	96.0
13993	106.68	109.18	2.50	2.0	0.15	177.0
13994	109.18	111.68	2.50	<2.0	0.14	151.0
13995	111.68	114.18	2.50	<2.0	0.23	180.0
13996	114.18	116.68	2.50	<2.0	0.05	123.0
13997	116.68	116.84	0.16	<2.0	0.04	122.0
13926	116.84	117.44	0.60	2.0	0.08	98.0
13998	117.44	119.94	2.50	2.0	0.08	143.0
13999	119.94	122.44	2.50	<2.0	0.10	105.0
14000	122.44	124.94	2.50	<2.0	0.11	118.0
13951	124.94	127.44	2.50	5.0	0.12	179.0
13952	127.44	129.39	1.95	3.0	0.02	77.0
13953	129.39	129.95	0.56	2.0	<0.02	107.0

DRILL HOLE NUMBER 91-04

Sample Number	From (m)	To (m)	Interval (m)	Gold (ppb)	Silver (ppm)	Copper (ppm)
13954	42.67	44.40	1.73	2.0	<0.02	82.0
13955	44.40	46.90	2.50	2.0	<0.02	46.0
13956	46.90	49.40	2.50	<2.0	<0.02	15.0
13957	76.65	77.62	0.97	<2.0	0.02	98.0

DRILL HOLE NUMBER 91-05

Sample Number	From (m)	To (m)	Interval (m)	Gold (ppb)	Silver (ppm)	Copper (ppm)
13958	52.02	52.52	0.50	2.0	0.02	197.0
13959	52.52	53.52	1.0	<2.0	0.02	185.0
13960	71.10	71.80	0.70	2.0	<0.02	61.0
13962	84.10	84.35	0.25	2.0	<0.02	49.0
13961	89.50	90.50	1.0	3.0	0.03	134.0

DRILL HOLE NUMBER 91-06

Sample Number	From (m)	To (m)	Interval (m)	Gold (ppb)	Silver (ppm)	Copper (ppm)
13864	54.86	56.38	1.52	<2.0	<0.02	86.0
13863	56.38	57.81	1.43	3.0	0.10	340.0
13865	57.81	58.73	0.92	2.0	0.02	114.0

DRILL HOLE NUMBER 91-07

Sample Number	From (m)	To (m)	Interval (m)	Gold (ppb)	Silver (ppm)	Copper (ppm)
13929	127.0	128.72	1.72	<2.0	<0.02	87.0
13928	138.25	138.32	0.07	2.0	0.45	1660.0
13930	142.95	144.14	1.19	<2.0	<0.02	115.0

Lithology

Hole 91-04 intersected bedrock at 42.67 meters (Figure 8).. Bedrock consists of fine-grained, strongly porphyritic (augite and plagioclase) andesitic, clast-rich breccia intruded by micro-gabbro dykes.

Structure

91-04 exhibits a much lesser degree of fracturing than 91-03. Fracture frequency is highest (50-160 / meter) in upper sections of the hole, decreasing to 20-70 / meter below 57 meters. Minor crush zones are present.

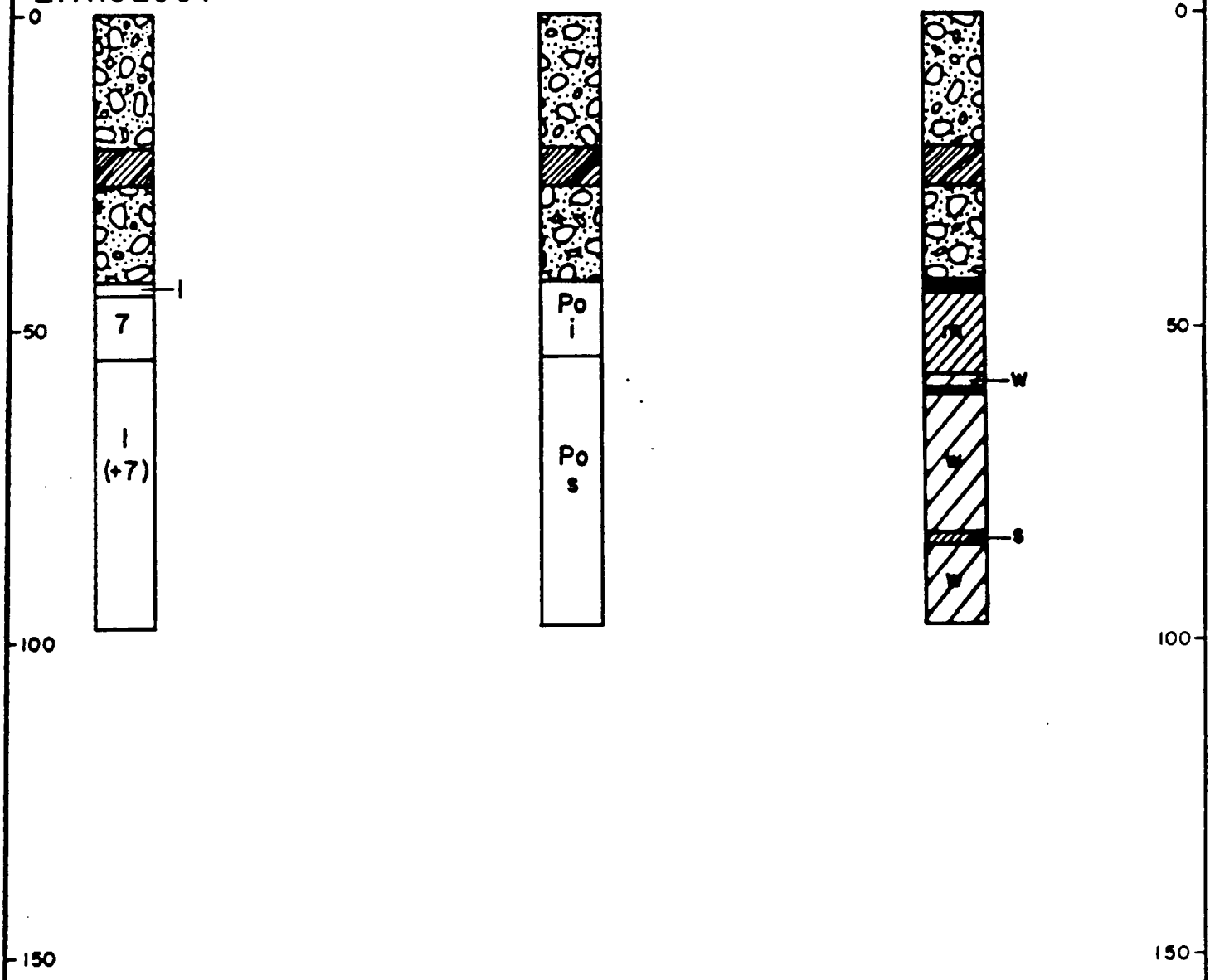
Alteration

From top of bedrock to 54.30 meters, hole 91-04 exhibits intense propylitic alteration, bordering on sericitic in places. Below the zone of micro-gabbro emplacement, alteration intensity decreases somewhat to strong propylitic.

Relative to 91-03, there is much less veining, a function of the lower fracture frequency.

Mineralization

Within the intense propylitic zone, sulfide content averages 2-3%, decreasing to approximately 0.5% in the less intensely propylitized zone below 54.30 meters.



LEGEND

- Sandy
- Boulder till — Overburden
- Massive clay
- 7 — Micro-gabbro
- 6 — Porphyritic andesite dyke
- 5 — Porphyritic augite andesite
- 4 — Andesite crystal tuff
- 3 — Porphyritic andesite flow
- 2 — Strongly heterolithic andesite breccia
- 1 — Porphyritic andesite breccia

LEGEND

- Po — Propylitic
- Ph — Phyllic
- K — Potassic
- w — Weak
- m — Moderate
- s — Strong
- i — Intense

LEGEND

- Strong
- Moderate — Fracturing
- Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-04

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 3800 N, 3915 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 8

Sulfides occur as disseminations, blebs and veinlets, and are dominated by pyrite with minor chalcopyrite.

Four intervals were split and analyzed. Despite higher sulfide contents, copper results (Table 3) are substantially lower than in hole 91-03, ranging from 15 to 98 ppm, and averaging 60 ppm.

No significant gold or silver results were obtained.

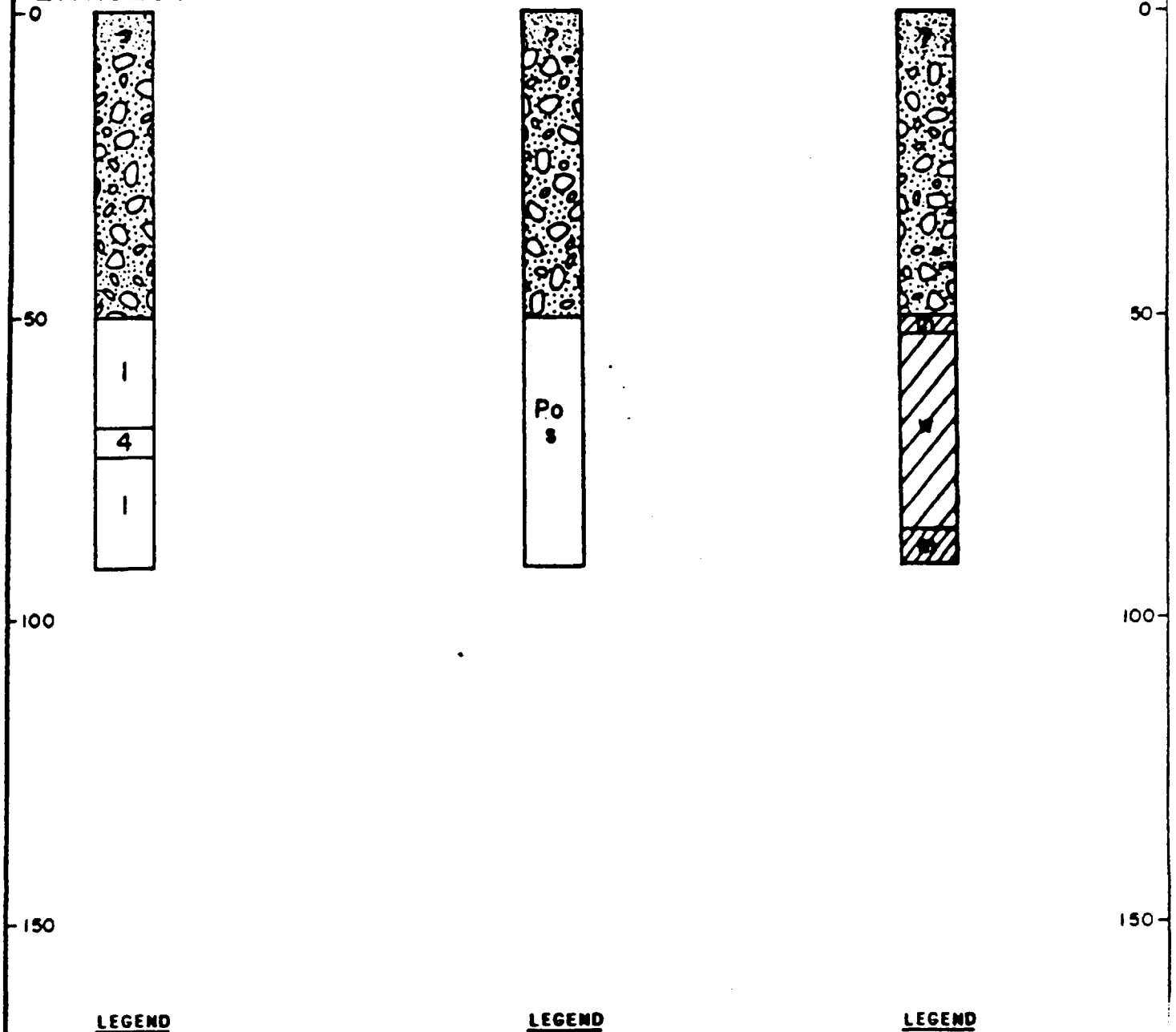
7.7. DRILL HOLE 91-05

Target

Hole 91-05 was targeted on the northwestern flank of the Central Magnetic Anomaly, in an area of strong chargeability response, and in proximity to an interpreted northeast trending fault.

Lithology

91-05 intersected bedrock at 50.29 meters. Bedrock consists of fine-grained, porphyritic andesitic, clast-rich breccia, as described in 91-04, with a coarse-grained andesite crystal tuff unit from 68.49 - 73.25. (Figure 9). The hole was terminated in the fine-grained andesite breccia at 91.44 meters.



LEGEND

- Sandy Boulder till Massive clay — Overburden
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate
- Weak — Fracturing
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-05

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 4000N, 3835 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 9

Structure

Fracture frequency is mostly low (10-50 / meter) with moderate-strong fracturing (100-150 / meter) over short intervals in the upper, central and lower sections of the core.

Alteration

Hole 91-05 exhibits strong propylitic alteration, similar to the lower sections of 91-04. Veinlet frequency is low, except for short, more highly-fractured sections (see drill log).

Mineralization

Sulfide content is generally low; ranging from trace to 2%, but averaging only approximately 0.25%. Sulfides occur as disseminations, blebs and minor veinlets, and are dominantly pyrite.

Five intervals were split and analyzed. Copper values (Table 3) ranged from 49 to 197 ppm, averaging 125 ppm. No significant gold or silver values were obtained.

7.8. DRILL HOLE 91-06

Target

Hole 91-06 was collared on the southwestern flank of the chargeability anomaly associated with the Central Magnetic Anomaly.

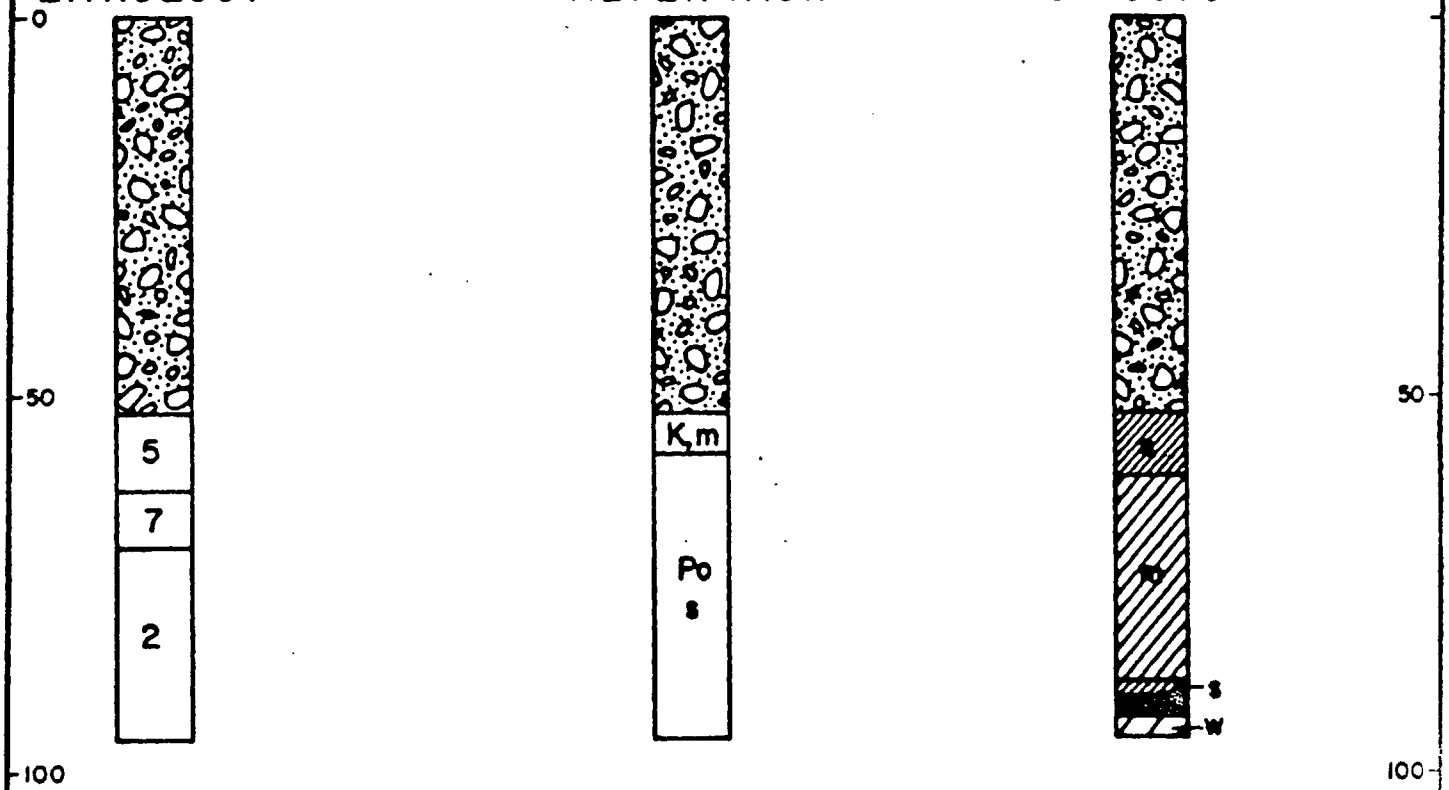
It was spotted as close as possible to a northeast-trending drainage depression and its intersection with the major east-west swamp system. Its principal objective was to test an area as close as possible to interpreted faults controlling these two drainage depressions.

Lithology

91-06 intersected bedrock at 52.42 meters (Figure 10). Bedrock consists of coarse-grained augite andesite (52.42-62.30 meters) and extremely clast-rich andesitic breccia (70.20-96.30), intruded by micro-gabbro (62.30-70.20).

Structure

Core is strongly fractured in upper sections, with fracture (and veinlet) frequency comparable to hole 91-03, but is more-massive and less fractured in lower sections. Several zones of strong shearing and gouge are present.



LEGEND

- Sandy
- Boulder till — Overburden
- Massive clay
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate — Fracturing
- Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-06

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 3600N, 3670 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 10

Alteration

From top of hole to 58.0 meters, the core contains, in addition to the epidote-sericite-calcite-chlorite assemblage seen in other holes, common reticulate potassium-feldspar (?) veinlets and some quartz veining. This section is tentatively categorized as moderate postassic alteration, interfingering with phyllic alteration.

Alteration decreases in intensity to strong propylitic from approximately 58 to 96.31 (EOH) meters.

Mineralization

Sulfide content averages approximately 3% in the potassic zone decreasing to less than 1% in the propylitic zone. As in other holes, sulfides occur as fine disseminations, coarser blebs and veinlets, and are dominated by pyrite with minor chalcopyrite.

Three intervals were analyzed (Table 3). Copper values ranged from 86-340 ppm, averaging 190 ppm. No significant gold or silver values occur.

7.9. DRILL HOLE 91-07

Target

Hole 91-07 was collared at the southwestern extremity of the Main Magnetic Anomaly, and near an interpreted northwest-trending structure which appears to form a boundary between the magnetic high, to the northeast, and a magnetic low, or trough, to the southwest. In addition to testing this magnetic boundary region, the objective was to establish bedrock depth roughly mid-way between holes 91-01 and 91-03. A pronounced resistivity low occurs in proximity.

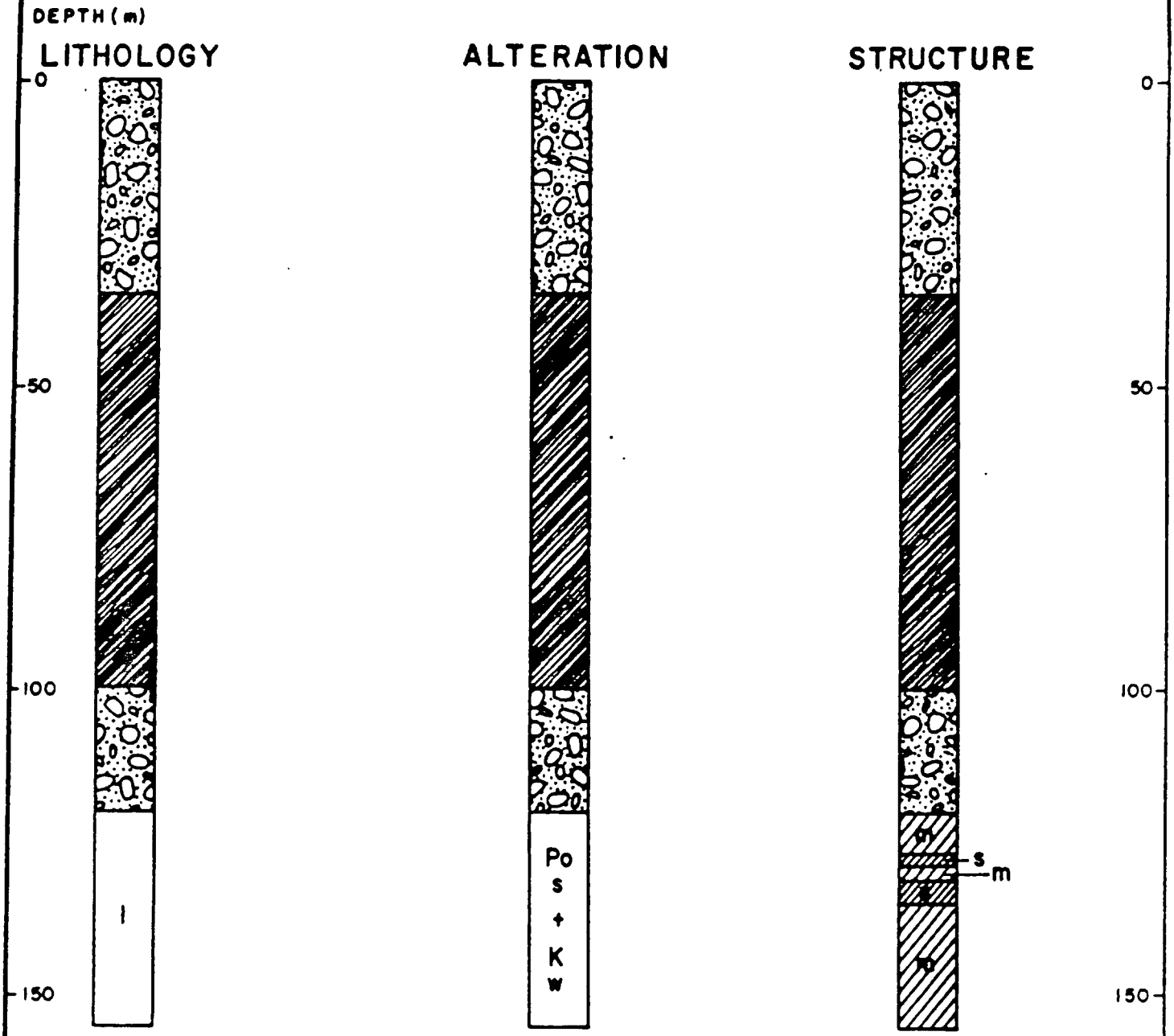
Lithology

Hole 91-07 intersected bedrock at 120.39 meters (Figure 11). A zone of massive, grey clay was intersected in the boulder-clay till between about 35 and 100 meters.

Bedrock consists of fine and coarse-grained phases of the porphyritic andesite breccia. The finer-grained phases are clast-rich.

Structure

Bedrock is dominantly moderately fractured (80-120 / meter) with short sections of strong fracturing and shearing.



LEGEND

- Sandy
- Boulder till — Overburden
- Massive clay
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate — Fracturing
- Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-07

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 3950 N, 4650 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 11

Alteration

Alteration in 91-07 is characterized by a propylitic assemblage of strong intensity, as previously described. However, pink potassium-feldspar (?) veinlets and feldspar alteration, which is more prominent in clasts, is present in places and is interpreted as a weak overprinting of potassic alteration.

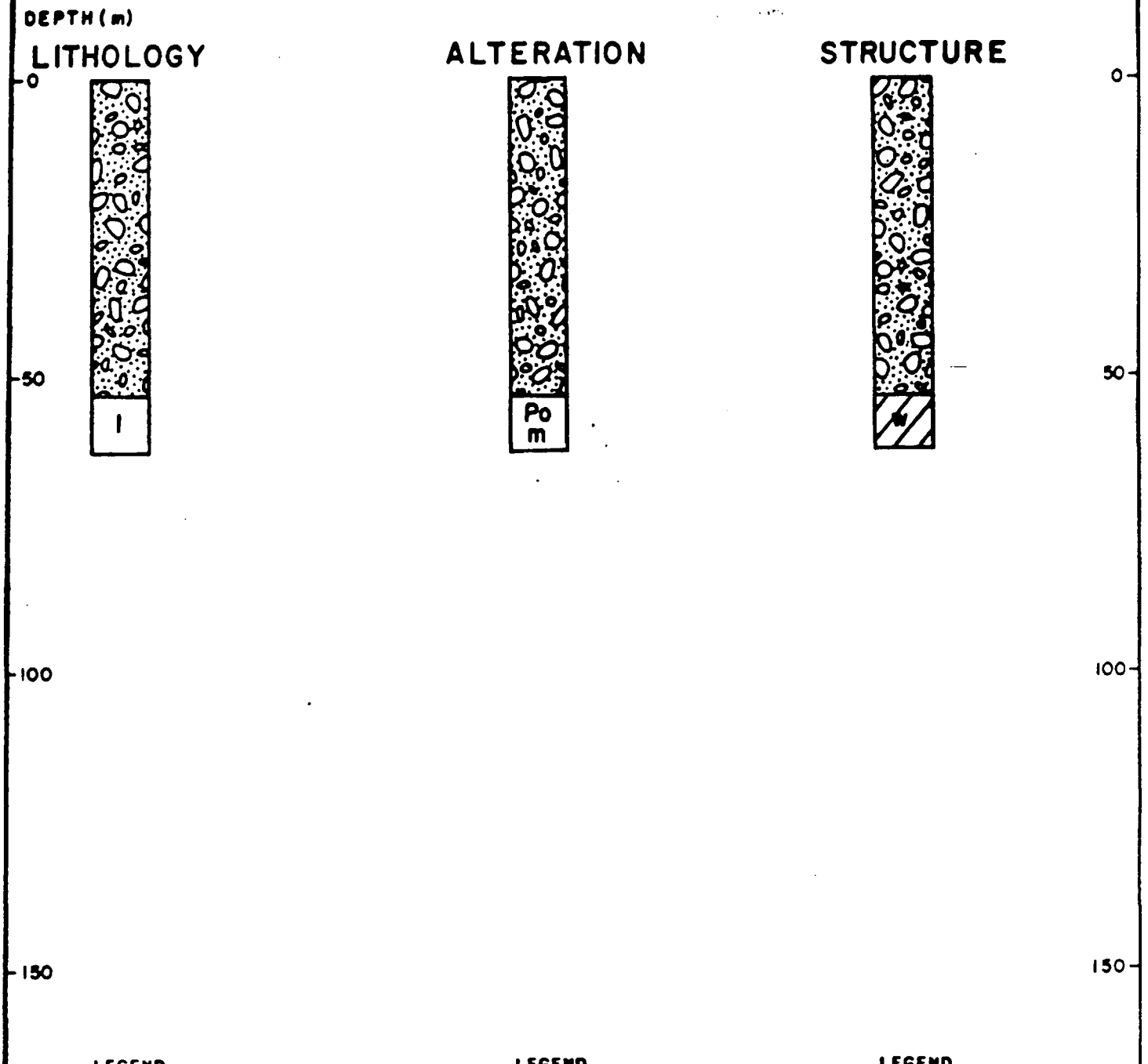
Mineralization

Sulfides average 1% and are dominantly pyrite. Coarse blebs of chalcopyrite , up to 5 mm X 2 mm, are associated with potassic alteration over a short interval at 138.25 meters. A 7 cm interval of this material analyzed 1,660 ppm copper. Two other samples from elsewhere in the core analyzed 8.7 and 115 ppm copper (Table 3). No significant gold or silver values were obtained.

7.10 DRILL HOLE 91-08

Target

Hole 91-08 was collared in an area of moderate magnetic relief, west of the Main Anomaly, and in proximity to an east-west trending, narrow drainage system. Objectives were to provide information on bedrock, and bedrock depth in this part of the property.



LEGEND

- Overburden: Sandy; Boulder till; Massive clay
- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Fracturing: Strong; Moderate; Weak
- Gouge

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-08

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 4400N, 4585 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 12

Lithology

Bedrock was intersected at 53.34 meters (Figure 12). It consists of fine-grained, clast-poor, porphyritic andesite breccia.

Structure

Fracture frequency is low (20-80 / meter).

Alteration

Hole 91-08 exhibited the weakest alteration seen in the drill program. A propylitic assemblage of moderate to weak intensity is developed.

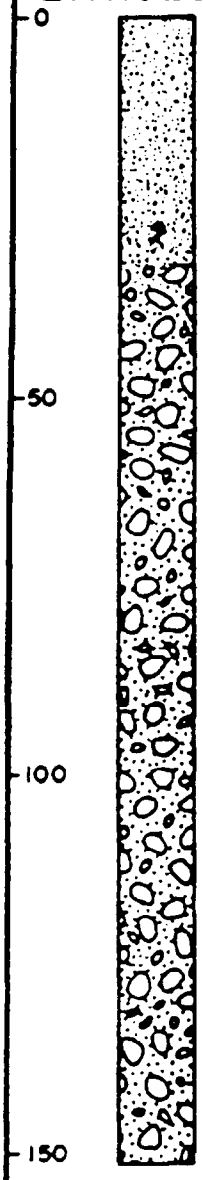
Mineralization

Sulfide content is low, averaging about 0.3%. No analyses were carried out.

7.11. DRILL HOLE 91-09

Target

Drill hole 91-09 was a third attempt to intersect bedrock in the principal target, the Main Anomaly. It was spotted on one of the highest magnetic responses within the anomaly, near AOK Lake.



LEGEND

- Sandy
- Boulder till
- Massive clay

Overburden

- 7 Micro-gabbro
- 6 Porphyritic andesite dyke
- 5 Porphyritic augite andesite
- 4 Andesite crystal tuff
- 3 Porphyritic andesite flow
- 2 Strongly heterolithic andesite breccia
- 1 Porphyritic andesite breccia

LEGEND

- Po Propylitic
- Ph Phyllic
- K Potassic
- w Weak
- m Moderate
- s Strong
- i Intense

LEGEND

- Strong
- Moderate
- Weak
- Gouge

Fracturing

TAKLA STAR RESOURCES LTD

DRILL HOLE SECTION

91-09

DRAWN BY: M.A.P.	SCALE: 1:1000
COORDINATES: 4700 N, 5200 E	
LOGGED BY: J. A. CLIMIE	
DATE: Nov., 1991	FIGURE #: 13

Lithology

The hole was lost in overburden at 146.91 meters.

8. DISCUSSION AND CONCLUSIONS

8.1. MAIN ANOMALY

The unexpectedly great depth of overburden over the Main Anomaly had profound effects on the drill program. The principal target, despite three attempts to drill-intersect bedrock, remains untested.

It is concluded that abundant locally-derived magnetic boulders within the overburden caused inaccurate overburden thickness estimates by the two geophysical contractors. The 100 meter grid-line separations of magnetic data enabled good apparent line to line correlation of vertical gradient magnetic data which was, in fact, a spurious correlation. This was the basis on which invalid depth to magnetic source calculations were made.

Enhanced chargeability responses over the Main Anomaly probably had their sources in the thick overburden. The massive clay unit intersected in holes 91-01 and 91-02 is the likely explanation for the chargeability anomalies tested on line 4400N.

Similarly, the unusually low resistivity responses seen over eastern parts of the Main Anomaly are interpreted to be due to high clay contents in overburden.

8.2. CENTRAL ANOMALY

The four holes (91-03 to 06) completed to bedrock in the Central Anomaly confirmed the interpreted shallowing of overburden to the west. Bedrock in this area is dominated by strongly porphyritic andesite breccia with minor intercollated lapilli tuff and microgabbro intrusions.

Strong fracturing is present in holes 91-03 and 91-06, collared near linear drainage depressions, apparently confirming that the latter are zones of major faulting.

Hydrothermal alteration in the area of the Central Anomaly is dominated by an epidote-pumpellyite-carbonate-chlorite-sericite-sulfide-magnetite assemblage. Alteration in phenocrysts, groundmass and within breccia clasts, is quite variable throughout the core. Overall, the alteration is categorized as strong propylitic.

A broad section of phyllic alteration, ranging from weak to intense, is present in hole 91-03 and is manifested by abundant sericite, sulfidization of magnetite and some silicification.

A zone of potassium-feldspar veining in the upper part of hole 91-06 is interpreted as moderate potassic alteration.

A correlation between fracture frequency and alteration intensity is noted, especially in holes 91-03 and 91-06. A possible correlation between microgabbro emplacement and more intense propylitic alteration (bordering on phyllic) is noted in the upper part of hole 91-04.

Chargeability anomalies associated with, and flanking, the Central Anomaly, are interpreted to represent enhanced sulfide content related to alteration. Some contribution to chargeability response by clay in overburden is possible.

Sulfides within the Central Anomaly occur as abundant very fine disseminations, coarser blebs and as veinlets. Sulfide content varies from trace to greater than 5%, averaging approximately 0.75 to 1% in the strong propylitic zones, and increasing within phyllic and potassic zones. Sulfides are dominantly pyrite with minor chalcopyrite.

Copper values are low, averaging from one to two hundred ppm, with locally higher values to the four hundred ppm level. No correlation is noted between total sulfide content and copper values.

No significant silver or gold values were obtained.

The magnetic anomaly is attributed to enhanced magnetite content within the andesite breccia associated with the propylitic alteration assemblage. R.D. Morton (pers. comm.) noted high magnetite content in the mafic intrusive, however, magnetic response in this is substantially less than in the andesite country rock.

8.3. DRILL HOLE 91-07

Hole 91-07, drilled about 1 kilometer southwest of the centre of the Main Anomaly, intersected andesite exhibiting a strong propylitic alteration assemblage with an interpreted incipient potassic overprint. This may reflect an increase in alteration intensity relating to increased proximity to the Main Anomaly. In addition, chalcopyrite mineralization, associated with potassic alteration, (e.g. 1,660 ppm copper over a short interval) is more evident in this hole.

8.4. DRILL HOLE 91-08

Hole 91-08 intersected the least-altered andesite seen in the drill program and appears to indicate a more rapid weakening of alteration intensity to the west of the Main Anomaly.

8.5. GEOLOGY OF THE PROPERTY

Bedrock intersected by the limited drill program is dominated by porphyritic andesite breccia which is similar to the dominant boulder-type distributed across the property, and also to outcrops on the western property boundary (Climie, 1991).

The andesite breccia is strongly porphyritic in plagioclase and augite, varies from fine to coarse-grained and contains clast-rich and clast-poor phases. Trachytic-textures are common. The clasts are augite and plagioclase porphyries varying greatly in texture and composition; they probably include both extrusive and intrusive material. In addition to angular clasts, sub-rounded and rounded clasts are common, and appear to represent partial assimilation of, originally, more-angular fragments.

The andesite breccia is interpreted to be related to phreatomagmatic explosions resulting from magma-seawater interaction at extrusive / intrusive centres, as proposed by Bailey and Hodson (1979). Andesite lavas incorporated fragments torn from the volcanic edifice and flowed outwards as molten debris avalanches. Minor pyroclastic units were laid down, subaqueously, on these debris flows.

As noted by Climie (1991) no whole rock chemistry has been carried out on the andesite which is in essence a field term. It may, in fact, be of more basaltic

composition, as is noted elsewhere in the northern Quesnel Trough (Climie, 1991).

The andesite breccia is green-grey in colour. None of the maroon mottling seen in outcrop was observed, possibly confirming the suggestion (Climie, 1991) that the maroon colouration, on which Nelson et al, (1990) subdivide the Chuchi and Witch Lake Formations, is due to younger weathering, rather than to an evolution of volcanism from subaqueous td subareal conditions.

The only intrusive material seen in drill core is the microgabbro in holes 91-04 and 91-06. Morton (pers. comm.) considers that the microgabbro reflects an olivine tholeiitic magma which is different from the "andesitic" magma.

None of the more-intermediate intrusives (diorite and monzonite), observed in numerous boulders at surface, was intersected.

It is concluded that the hydrothermal alteration (and magnetite) associated with the Central Anomaly (and other anomalies) is related to intrusive material of unknown distribution and depth. Inadequate drilling was carried out to determine the nature of these interpreted intrusives.

8.6. CONCLUSIONS ON MINERALIZATION SETTING

The limited drill program was unsuccessful in intersecting porphyry gold-copper mineralization of economic interest.

Overburden thickness prevented drill testing of the principal target, the Main Anomaly. However, all surface geological, geochemical and geophysical data are consistent with this strong magnetic anomaly reflecting a porphyry alteration / mineralization system. Results in 91-07, on the southwestern extremity of the anomaly, lends support to this view. However, overburden presents significant exploration and economic limitations to evaluating the Main Anomaly.

Alteration and mineralization associated with the Central Anomaly is consistent with the upper, or more distal parts of a porphyry mineralization system.

An increase in fracturing and alteration / mineralization intensity in proximity to the east-west swampy depression (and nearby northeast-trending drainage linear) is interpreted to confirm that this is a major zone of faulting. The postulated fault zone could well be the source area of the Zone 2 gold dispersion train. The setting is consistent with an epithermal gold environment peripheral to a porphyry system. Unfortunately, wet terrain conditions prevented drill testing within the main structural depressions. These remain valid exploration targets which can be tested only in frozen ground conditions.

The geological setting, widespread propylitic alteration, and heavy mineral gold dispersion trains containing significant quantities of proximal gold, point to the presence of gold mineralization on the AOK Property. It is considered that the most productive potential target is structurally-controlled epithermal gold. The

most prospective targets are likely to be in the linear drainage depressions and these warrant additional work. No conclusions can be made on preferred structural orientations at this time. However, the east-west swampy depression near the Central Anomaly would be an obvious starting point. In addition, the prominent northeast and northwest-trending linears seen elsewhere on the property should also be evaluated.

9. RECOMMENDATIONS

Additional structural interpretation of air photo, satellite imagery and magnetic data, leading to drill-testing of structural targets is recommended.

Further evaluation of the Western and Southern Magnetic anomalies is also recommended; as well as the far northwestern part of the property, where a number of potassic-altered diorite boulders, anomalous copper values in boulders, and gold geochemical anomalies were detected.

10. ACKNOWLEDGEMENTS

The author gratefully acknowledges the contributions of J.P. Stewart of Takla Star Resources in planning and implementing the drill program.

W. Bale, also of Takla Star, assisted in the planning and regulatory phases of the program.

R. Shaw carried out much of the core splitting and provided comments on alteration.

Dr. R.D. Morton of the University of Alberta, provided useful petrographic observations on several drill core specimens.

Dr. B. Ballantyne and Dr. D. Harris of the G.S.C. also provided useful observations on the drill core.

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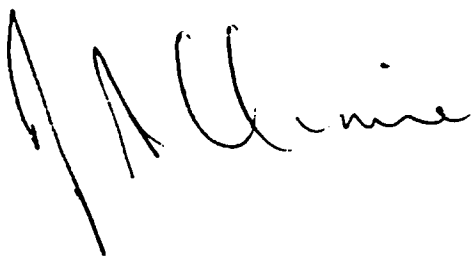
12. CERTIFICATE OF QUALIFICATION

I, James Anthony Climie of 2419 Deerside Drive S.E., Calgary, Alberta, do hereby certify that:

1. I am a consulting geologist operating from the above address.
2. I am a graduate of the University of Wellington, New Zealand with a B.Sc. Hons. degree in Geology obtained in 1968.
3. I am registered as a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I am a member of the Canadian Institute of Mining and Metallurgy, Society of Economic Geologist and Australasian Institute of Mining and Metallurgy.
5. I have practised my profession continuously since 1968 in New Zealand, Australia and Canada and additional consulting assignments in Italy, Zambia and the U.S.A.
6. I have held positions of responsibility with Noranda, AGIP and CEGB Exploration, including Exploration Manager for the latter two companies for periods of approximately 5 and 7 years respectively.
7. I am the author of the accompanying report.
8. I have not, nor do I expect to receive any interest directly or indirectly in the property or in the securities of Takla Star Resources Ltd.

Dated at Calgary, Alberta, this 3rd day of December, 1991.

Certified:  Date: Dec. 3, 1991

APPENDIX 1

DRILL HOLE LOGS

(91-01 TO 91-09)

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-01
COORDINATES	:	4400N, 5425E
DISPOSITION	:	AOK 1
CORE SIZE	:	No core
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 18, 1991
DATE COMPLETED	:	September 19, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	134.11 m
TOTAL DEPTH	:	134.11 m
RECOVERY	:	N/A

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-01

FROM (m)	*TO (m)*	*DESCRIPTION*			
		OVERBURDEN			
0	- 134.11	0	-	25 m (approx.)	Sand, gravel, cobbles, boulders minor silt.
		25	-	103.63	Boulder-clay till
		103.63	-	134.11	Massive Clay

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-02
COORDINATES	:	4400N, 5150E
DISPOSITION	:	AOK 1
CORE SIZE	:	No core
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 19, 1991
DATE COMPLETED	:	September 20, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	91.44 m
TOTAL DEPTH	:	91.44 m
RECOVERY	:	N/A

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-02

FROM (m)	*TO (m)*	*DESCRIPTION*			
		OVERBURDEN			
0 -	91.44	0	-	25 m (approx.)	Sand, gravel, cobbles, boulders minor silt.
		25	-	76.02	Boulder-clay till
		76.02	-	91.44	Massive Clay

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-03
COORDINATES	:	3525N, 3910E
DISPOSITION	:	AOK 1
CORE SIZE	:	NQ
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 20, 1991
DATE COMPLETED	:	September 22, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	49.37 m
TOTAL DEPTH	:	128.93 m
RECOVERY	:	97 - 100%

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-03

FROM (m)		*TO (m)*	*DESCRIPTION*
0	-	49.37	OVERBURDEN
49.37	-	78.60	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA Dark grey-green, strongly porphyritic andesite. Abundant plagioclase laths (0.5 - 1 mm) and coarser augite phenocrysts (1-2 mm) set in an aphanitic matrix. Sparsely distributed sub-rounded to sub-angular fragments, or clasts, of plagioclase-augite porphyritic andesite of varying grain size. Clast size varies from a few cm to > 10 cm. Faulted contact at base.
78.60	-	97.60	COARSE-GRAINED PORPHYRITIC ANDESITE FLOW Dark grey-green, strongly porphyritic, flow-textured andesite. Coarse plagioclase (1-4 mm, average 2 mm) and augite (2-5 mm, average 3 mm) in aphanitic matrix. Extremely coarse-grained phase from 93.74 to 97.60.
97.60	-	116.84	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA As above, with sparse, sub-rounded to sub-angular clasts of porphyritic andesite with varying texture and colour (light to dark).
116.84	-	117.99	COARSE-GRAINED, PORPHYRITIC ANDESITE DYKE (?) Dark grey-green, strong porphyritic: very coarse (2-7 mm) flesh-coloured plagioclase laths, augite phenocrysts (to 4 mm) and finer (0.5 - 1 mm) hornblende phenocrysts in dark aphanitic matrix.
117.99	-	128.93 (EOH)	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA As above

STRUCTURAL LOG

DRILL HOLE NUMBER 91-03

FROM (m)		*TO (m)*	*FRACTURE FREQUENCY (per m)*	*DESCRIPTION*
49.37	-	74.00	100-200	Strongly broken and fractured. Fracture width averages 0.5 mm, up to 5 mm. Dominant directions 10-30° and 70-90° to core axis. Fracture fillings are calcite, epidote, chlorite, pyrite and earthy hematite. Slickensides along some fractures. Fracture frequency increasing with depth.
74.00	-	77.30	200-250	Very strongly fractured and sheared with chlorite along shears. Shearing increasing with depth.
77.30	-	78.60		Chloritic gouge zone. Abundant grey-green chlorite. Shearing decreases with depth.
78.60	-	81.50	200-250	Strongly fractured and sheared zone, as above.
81.50	-	84.77	100-250	Strongly fractured, less shearing. Fracture width, orientation and frequency as above.
84.77	-	100.58		Shear zone with irregular chloritic gouge zones.
100.58	-	106.70	150-250	Strongly fractured, less shearing. Fracture width, orientation and filling as above.
106.70	-	128.33	100-150	Zone of moderate fracturing with minor chloritic shears.
128.33	-	128.93 (EOH)		Gouge zone with abundant chlorite

ALTERATION LOG

DRILL HOLE NUMBER 91-03

FROM (m)		*TO (m)*	*ALTERATION ASSEMBLAGE*	*INTENSITY*	*DESCRIPTION*
49.37	-	86.80	Propylitic	Strong	Augite phenocrysts altered to chlorite, tremolite, carbonate, epidote and pumpellyite. Plagioclase altered to sericite, epidote and pumpellyite. Matrix altered to very fine-grained aggregate of chlorite, epidote, pumpellyite, sericite, carbonate and phrenite. Abundant calcite, epidote, chlorite and pyrite-filled fractures. Sulfide dominantly pyrite as veinlets, blebs and fine disseminations. Sulfide content trace to 2%, average approximately 0.5%. Minor chalcopyrite. Abundant magnetite.
86.80	-	93.74	Phyllic	Intense	Light-grey, "bleached" zone. Gradational upper and lower contacts. Dominantly chlorite, sericite and quartz veinlets (1-3 mm). More abundant sulfide, with trace to 5%, average 1%. Dominantly pyrite with minor chalcopyrite. Magnetite destroyed and replaced by sulfide.
93.74	-	94.34	Phyllic	Weak	Moderate sericitization of augite and plagioclase. Magnetite replaced by sulfide; approximately 0.3% sulfide, dominantly pyrite. Non magnetic.
94.34	-	95.09	Phyllic	Intense	Light grey. Abundant sericite, silicification of matrix and quartz veinlets. Average 0.5% sulfide (dominantly pyrite). Non magnetic.
95.09	-	97.89	Phyllic	Weak	As above. Average 0.5% sulfide. Gradational contacts. Non magnetic.
97.89	-	99.32	Phyllic	Intense	As above. Average 1% sulfide (dominantly pyrite). Non magnetic.

Continued..../

ALTERATION LOG

DRILL HOLE NUMBER 91-03 ... (Continued)

FROM (m)		*TO (m)*	*ALTERATION ASSEMBLAGE*	*INTENSITY*	*DESCRIPTION*
99.32	-	103.18	Phyllic	Weak	As above, with common epidote, sericite, chlorite, calcite and quartz veinlets. Average 2% sulfide (dominantly pyrite).
103.18	-	105.83	Phyllic	Intense	As above. Average 2.5% sulfide.
105.83	-	106.40	Phyllic	Weak	As above, grading to propylitic alteration. Average 0.3% sulfide.
106.40	-	128.93	Propylitic	Strong	As above. Trace to 1.5% sulfide, average 0.7%. Dominantly pyrite. Abundant magnetite.

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-04
COORDINATES	:	3800N, 3915E
DISPOSITION	:	AOK 2
CORE SIZE	:	NQ
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 22, 1991
DATE COMPLETED	:	September 23, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	42.67 m
TOTAL DEPTH	:	97.53 m
RECOVERY	:	97 - 100%

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-04

FROM (m)		*TO (m)*	*DESCRIPTION*
0	-	42.67	OVERBURDEN Boulder-clay till. Massive grey clay from 21.33 - 27.43 m.
42.67	-	44.40	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA / CRUSH ZONE Sparse, strongly sheared fragments of porphyritic plagioclase-augite andesite, with heterolithic andesite clasts, in grey clay-rich crush zone.
44.40	-	55.0	MICRO-GABBRO (Minor Andesite Breccia) Dominantly light grey-green equigranular, rapidly chilled mafic intrusive. Equal proportions of zoned, calcic(?) plagioclase and mafics with minor, remnant olivine. Mafics dominantly pyroxene with subordinate amphibole. Lesser porphyritic andesite breccia as above. Interpreted as tholeiitic dykes emplaced into andesite country rock.
55.0	-	97.53 (EOH)	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA (Minor Micro -Gabbro Dykes) Dominantly, darker grey-green, strongly porphyritic plagioclase-augite andesite breccia. Trachytic-textured plagioclase laths aligned at 50° to core axis, average size 0.5 - 0.7 mm. Minor stubby albite(?) crystals. Relict augite phenocrysts to 4 mm. Augite and plagioclase phenocrysts occur in dark, aphanitic matrix. Numerous (more abundant than in 91-03) rounded, sub-angular to angular clasts of heterolithic plagioclase-augite andesite of varying texture and grain size. Clast size 2-12 cm, average 2-3 cm. Irregular, narrow (<25 cm), micro-gabbro dykes.

STRUCTURAL LOG

DRILL HOLE NUMBER 91-04

FROM (m)		*TO (m)*	*FRACTURE FREQUENCY (per m)*	*DESCRIPTION*
42.67	-	44.40	160	Dominantly grey clay in gouge, or crush zone. Scattered remnant fragments of less tectonised rock with fracture frequency of approximately 160/m. Dominant fracture orientations are 5 - 45° cut by later 75 - 90° set. Fracture fillings dominantly chlorite with subordinate calcite, epidote and pyrite. Average fracture / veinlet width 0.3 - 0.4 mm (up to 2 cm.).
44.40	-	57.62	50-150	Very broken and sheared section. Dominant orientation of fractures 70-90°. Fracture filling as above.
57.62	-	59.80	20-50	Weak fracturing and veining. Crush zone from 58.52 to 58.70 m.
59.80	-	60.12		Crush zone.
60.12	-	97.53 (EOH)	50-70 (average)	Weakly to moderately fractured with minor, more intensely tectonised zones. Fracture orientations 5 - 45° and 75 - 90°. Fracture fillings are calcite, chlorite, pyrite and epidote. More tectonised sections as follows: **60.66 - 61.46 : Crush zone** **76-77 : Abundant calcite-filled vughs** **82.80 - 84.43 : More strongly fractured (150-200/m) and sheared section**

ALTERATION LOG

DRILL HOLE NUMBER 91-04

FROM (m)	*TO (m*	*ALTERATION ASSEMBLAGE*	*INTENSITY*	*DESCRIPTION*
42.67 -	54.30	Propylitic (To Sericitic)	Intense	Pyroxene strongly altered to tremolite, epidote, carbonate and chlorite; plagioclase to sericite, epidote and pumpellyite. Matrix altered to an aggregate of chlorite, epidote, carbonate and phrenite. The dominant, light grey-green sections represent areas of more intense sericitic and sulfide alteration relative to darker grey zones. Sulfides average 2 - 3%, as fine disseminations, coarse blebs and veinlets. Dominantly pyrite with minor chalcopyrite. Modern frequency (160/m) of chlorite, calcite, epidote and pyrite veinlets. Weakly magnetic.
54.30 -	97.53 (EOH)	Propylitic	Strong	Alteration mineralogy as above but of lesser intensity. Substantially less sericite, sulfide and veining. Sulfide, as disseminations, blebs and veinlets ranges from trace to 2%, average 0.4%. Narrow, more intensely altered sections correlate with zones of greater fracture frequency. Moderately to strongly magnetic.

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-05
COORDINATES	:	4000N, 3835E
DISPOSITION	:	AOK 2
CORE SIZE	:	NQ
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 23, 1991
DATE COMPLETED	:	September 24, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	50.29 m
TOTAL DEPTH	:	91.44 m
RECOVERY	:	97 - 100%

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-05

FROM (m)		*TO (m)*	*DESCRIPTION*
0	-	50.29	OVERBURDEN Boulder-clay till.
50.29	-	68.49	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA Dark grey, strongly porphyritic andesite breccia. Consists of trachytic-textured plagioclase laths (45 - 50° orientation to core axis), ranging from 0.3 - 1.5 mm (average 0.7 mm) and coarser (1 - 3 mm, average 1.5 mm) augite phenocrysts in an aphanitic matrix. Minor hornblende. Numerous rounded, sub-angular to angular clasts (from 2 - 8 cm diameter) of andesite with variable texture and grain size.
68.49	-	73.25	COARSE-GRAINED ANDESITE CRYSTAL TUFF Dark-grey to green, coarse textured pyroclastic. Sub-rounded lapilli (1 - 4 mm) in porphyritic plagioclase-augite andesite similar to above but lacking trachytic-texture. Also includes coarser clasts of andesite with variable texture and grain size.
73.25	-	91.44 (EOH)	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA As above.

STRUCTURAL LOG

DRILL HOLE NUMBER 91-05

FROM (m)		*TO (m)*	*FRACTURE FREQUENCY (per m)*	*DESCRIPTION*
50.29	-	52.52	100-150	Moderate-strong fracturing and chloritic shears.
52.52	-	71.10	10-50	Low fracture frequency (more intense fracturing 66.40 - 66.60 m).
71.10	-	71.80	100-150	Moderate-strong fracturing.
71.80	-	85.30	10-50	Low fracture frequency.
85.30	-	91.44 (EOH)	100-150	Moderate-strong fracturing with chloritic shears.
				Generally low fracture frequency in 91-05 with corresponding lower frequency of calcite, epidote, chlorite and sulfide veinlet.

ALTERATION LOG

DRILL HOLE NUMBER 91-05

FROM (m)	*TO (m)*	*ALTERATION ASSEMBLAGE*	*INTENSITY*	*DESCRIPTION*
50.29	- 91.44 (EOH)	**Propylitic**	**Strong**	Pyroxene moderately altered to tremolite, epidote, carbonate and chlorite. Plagioclase moderately altered to epidote and pumpellyite. Matrix more strongly altered to an assemblage of epidote, carbonate, sericite and chlorite. Minor calcite, epidote, chlorite and pyrite veinlets. Sulfide content ranges from trace to 1%, average 0.25%. Dominantly pyrite. More intense alteration and veining noted from: ***64.05 -64.45 : abundant epidote and sericite*** ***66.40 -66.60 : abundant calcite and epidote*** ***81.33 -84.40 : abundant epidote*** Pyrite increases to 1.5 - 2% in latter three sections.

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-06
COORDINATES	:	3600N, 3670E
DISPOSITION	:	AOK 1
CORE SIZE	:	NQ
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 24, 1991
DATE COMPLETED	:	September 26, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	52.42 m
TOTAL DEPTH	:	96.31 m

RECOVERY	:	52.42	- 54.86	16%
		54.86	- 56.38	25%
		56.38	- 56.69	96%
		56.69	- 57.81	49%
		57.81	- EOH	97-100%

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-06

FROM (m)		*TO (m)*	*DESCRIPTION*
0	-	52.42	OVERBURDEN Boulder-clay till.
52.42	-	62.30	PORPHYRITIC AUGITE ANDESITE Dark grey-black (where fresh); dominantly augite porphyry. Coarse 2 - 5 mm (average 3.0 mm), augite phenocrysts and sparse plagioclase laths (0.5 - 2 mm, average 1 mm) in black, aphanitic matrix. Possibly dyke.
62.30	-	70.20	MICRO-GABBRO Dark green-grey, fine-grained, equigranular mafic intrusive. Average grain size in centre 1 mm, finer at margins. Equal proportions of zoned, calcic(?) plagioclase and mafics. Mafics consist of pyroxene and amphibole. Possibly minor olivine. Incorporates clasts of andesite. Interpreted as tholeiitic stock or dykes emplaced into andesite country rock.
70.20	-	96.31 (EOH)	STRONGLY HETEROLITHIC ANDESITE BRECCIA Light to dark grey-black, strongly heterolithic breccia. Composed of abundant clasts of plagioclase - augite - (hornblende) porphyries, of highly variable grain size, texture and proportions of mafics and plagioclase; set in a fine-grained andesitic matrix. Clast size ranges from 2 - 10 cm plus.

STRUCTURAL LOG

DRILL HOLE NUMBER 91-06

FROM (m)	*TO (m)*	*FRACTURE FREQUENCY (per m)*	*DESCRIPTION*
52.42	60.95	125-250	Extremely broken, abundant gouge. Extensive core loss. Fracture orientations: *(1) 5-15°* *(2) 30-50° (dominant)* *(3) 80-90°*
60.95	88.30	40-120	More massive, less fracturing. Shear gouge from 83.40 - 84.00 m.
88.30	90.22	120-200	Very broken and extensively fractured.
90.22	92.90		Strongly sheared, abundant gouge (grey clay).
92.90	96.31 (EOH)	40-120	More massive, less fracturing.

ALTERATION LOG

DRILL HOLE NUMBER 91-06

FROM (m)	*TO (m)*	*ALTERATION ASSEMBLAGE*	*INTENSITY*	*DESCRIPTION*
52.42 -	58.0	**Potassic**	**Moderate**	Light grey to pink; complex reticulate network of whispy pink potassium-feldspar, quartz, calcite and pyrite veinlets. Matrix of sericite, epidote, chlorite, calcite and quartz. Sulfides as fine disseminations, coarse blebs and veinlets - 0.5 to 4%, average 3%. Dominantly pyrite. Note core loss. Non-magnetic. Overlapping and interfingering with phyllic alteration.
58.00 -	96.31 (EOH)	**Propylitic**	**Strong**	Moderate to strong alteration of mafic (to tremolite, epidote and chlorite) and plagioclase (to sericite and epidote) phenocrysts. Strong alteration of matrix (to epidote, sericite, chlorite, carbonate and sulfide). Moderate development of calcite, chlorite, epidote and pyrite veining in more strongly fractured zones. Sulfides as abundant find disseminations, blebs and veinlets. Sulfide content trace to 3%, average 0.8%. Dominantly pyrite, minor chalcopyrite. Moderate magnetite.

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-07
COORDINATES	:	3950N, 4650E
DISPOSITION	:	AOK 1
CORE SIZE	:	NQ
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 26, 1991
DATE COMPLETED	:	September 28, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	120.39 m
TOTAL DEPTH	:	155.44 m
RECOVERY	:	97 - 100%

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-07

FROM (m)		*TO (m)*	*DESCRIPTION*
0	-	120.39	OVERBURDEN *0 to approximately 35 m : boulder-clay till* *35 to approximately 100 m : dominantly massive grey clay* *100 m to 120.39 m : boulder-clay till*
120.39	-	132.38	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA Dark grey-green, clast-rich breccia. Inter-clast matrix consists of fine-grained, porphyritic plagioclase-pyroxene andesite. Plagioclase laths range from 0.4 - 2 mm, average 0.6 mm; trachytic-texture is common. Augite ranges from 0.5 - 4 mm, averages 1.0 mm. Plagioclase and augite phenocrysts occur in a dark, aphanitic matrix. Clasts are extremely abundant and consist of sub-rounded to sub-angular fragments from 3 mm to 15 cm plus. Clasts are plagioclase-pyroxene-(amphibole) porphyries of highly variable grain-size and textures. Probably include both volcanic and intrusive material. Moderately magnetic.
132.38	-	138.15	COARSE-GRAINED PORPHYRITIC ANDESITE BRECCIA Coarser-grained, clast-poor variant of above. Plagioclase laths 1 - 3 mm, average 1.5 mm and pyroxene phenocrysts 3 - 5 mm, average 3.5 mm diameter. Clasts are uncommon.
138.15	-	155.44 (EOH)	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA Fine-grained, clast-rich andesitic breccia as above.

STRUCTURAL LOG

DRILL HOLE NUMBER 91-07

FROM (m)	*TO (m)*	*FRACTURE FREQUENCY (per m)*	*DESCRIPTION*
120.39	- 155.44 (EOH)	80-120	Moderately (to strongly) fractured. Fracture width average 1 mm, up to 4 mm. Fracture orientations: *(1) 5-10°* *(2) 20-30° (most abundant)* *(3) 70-90°* Fracture fillings are chlorite, calcite, pyrite and earthy hematite. Also, minor flesh-coloured to pink veinlets of potassium feldspar(?). More strongly fractured (120-150/m) and more abundant calcite veining from 127.0 - 128.72 m. Strongly broken, with more abundant shearing and chloritic slickensides from 131.35 - 135.0 m. Calcite crystals line open vughs from 137.0 - 138.0 m.

ALTERATION LOG

DRILL HOLE NUMBER 91-07

FROM (m)	TO (m)	ALTERATION ASSEMBLAGE	INTENSITY	DESCRIPTION
120.39	155.44 (EOH)	**Propylitic plus weak potassic alteration in places**	**Strong**	Some variability of alteration intensity through core. Augite phenocrysts moderately to strongly altered to tremolite, epidote and chlorite. Plagioclase moderately altered to sericite and epidote. Interclast matrix altered to sericite, chlorite, carbonate and epidote. Moderate abundance of calcite, chlorite, epidote, pyrite and hematite veinlets. Suspected K-feldspar veinlets in places. Clasts exhibit quite variable alteration intensity. Alteration mineralogy as above, but with some intensely altered clasts. Pink-flesh coloured feldspar (potassic?) alteration in some clasts. Sulfides occur as fine disseminations, coarse blebs and veinlets. Sulfides range from trace to 3%, average 1%. Dominantly pyrite but significant chalcopyrite present and some coarse blebs to 5 mm X 2 mm at 138.25 m. Disseminated magnetite throughout core.

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-08
COORDINATES	:	4400N, 4585E
DISPOSITION	:	AOK 1
CORE SIZE	:	NQ
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 28, 1991
DATE COMPLETED	:	September 29, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	53.34 m
TOTAL DEPTH	:	62.48 m
RECOVERY	:	97 - 100%

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-08

FROM (m)		*TO (m)*	*DESCRIPTION*
0	-	53.34	OVERBURDEN Boulder-clay till.
53.34	-	62.48 (EOH)	FINE-GRAINED, PORPHYRITIC ANDESITE BRECCIA Dark grey-green, clast-poor andesite breccia. Plagioclase laths from 0.3 to 5 mm, average 0.8 mm. Trachytic-textured in places. Pyroxene phenocrysts up to 3 mm in diameter. Clasts are uncommon, sub-rounded to sub-angular, and consist of plagioclase-pyroxene porphyry of varying grain size and texture.

STRUCTURAL LOG

DRILL HOLE NUMBER 91-08

FROM (m)	*TO (m)*	*FRACTURE FREQUENCY (per m)*	*DESCRIPTION*
53.34	- 62.48 (EOH)	20-80	Generally low fracture frequency. fracture fillings are calcite, chlorite and epidote. Primary fracture orientation is 40 - 48°, secondary orientation of 80 - 90° to core axis.

ALTERATION LOG

DRILL HOLE NUMBER 91-08

FROM (m)	*TO (m)*	*ALTERATION ASSEMBLAGE*	*INTENSITY*	*DESCRIPTION*
53.34	62.48 (EOH)	Propylitic	Moderate (to weak)	Augite phenocrysts moderately altered to epidote and pumpellyite. Plagioclase weakly altered to sericite, epidote and pumpellyite. Matrix moderately altered as above. Scattered calcite and epidote veinlets up to 4 mm width. Trace to 0.5% sulfide as disseminations, average 0.3%. Dominantly pyrite. Abundant disseminated magnetite.

DRILL HOLE DATA

DRILL HOLE NUMBER	:	91-09
COORDINATES	:	4700N, 5200E
DISPOSITION	:	AOK 1
CORE SIZE	:	No core
INCLINATION	:	-90°
AZIMUTH	:	-
DATE STARTED	:	September 29, 1991
DATE COMPLETED	:	September 30, 1991
LOGGED BY	:	J.A. Climie
OVERBURDEN	:	146.91 m
TOTAL DEPTH	:	146.91 m
RECOVERY	:	N / A

LITHOLOGIC LOG

DRILL HOLE NUMBER 91-09

FROM (m)	*TO (m)*	*DESCRIPTION*
		OVERBURDEN
0 -	146.9	0 - 5 m (approx.) Sand, gravel, cobbles, boulders minor silt.
		5 - 146.9 Boulder-clay till

APPENDIX 2

ANALYTICAL RESULTS

BARRINGER MAGENTA
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BARRINGER
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C O P Y

AUTHORITY:J.A. CLIMIE

MR. J.A. CLIMIE
2419 DEERSIDE DR. S.E.
CALGARY,AB. T2J 5L7

WORK ORDER: 7525D-91

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY AU PPB	FIRE ASSAY AG PPM	CU PPM
13851	2.0	<0.02	61.0
13852	3.0	0.02	92.0
13853	5.0	0.02	87.0
13854	7.0	0.21	230.0
13855	2.0	0.02	96.0
13856	4.0	0.04	135.0
13857	3.0	0.09	160.0
13858	8.0	0.12	264.0
13859	<2.0	0.1	171.0
13860	<2.0	0.03	400.0
13861	3.0	0.03	97.0
13862	<2.0	0.02	114.0
13863	3.0	0.1	340.0
13864	<2.0	<0.02	86.0
13865	2.0	0.02	114.0
13926	2.0	0.08	98.0
13927	<2.0	<0.02	119.0

SIGNED: _____
C. Douglas Read,
LABORATORY MANAGER

ORIGINAL TO:
TAKLA STAR RESOURCES LTD.
EDMONTON, AB. T5J 2Z2
J. STEWART

FOOTNOTES:
P=QUESTIONABLE PRECISION; *=INTERFERENCE; TR=TRACE; ND=NOT DETECTED;
IS=INSUFFICIENT SAMPLE; NA=NOT ANALYZED; MS=MISSING SAMPLE

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WORK ORDER: 7516D-91

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY AU PPB	FIRE ASSAY AG PPM	CU PPM
13977	3.0	0.05	237.0
13978	2.0	0.13	151.0
13979	2.0	0.7	283.0
13980	<2.0	0.02	103.0
13981	<2.0	1.0	271.0
13982	3.0	0.15	198.0
13983	2.0	0.14	122.0
13984	2.0	0.09	143.0
13985	3.0	0.14	250.0
13986	2.0	0.26	273.0

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WORK ORDER: 7528D-91

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY AU PPB	FIRE ASSAY AG PPM	CU PPM
13866	<2.0	0.02	87.0
13867	<2.0	0.12	196.0
13868	<2.0	0.05	114.0
13869	<2.0	0.02	120.0
13870	2.0	0.04	135.0
13871	2.0	0.13	171.0
13872	4.0	0.12	98.0
13873	<2.0	0.05	132.0
13874	<2.0	0.13	174.0
13875	3.0	0.18	344.0
13928	2.0	0.45	1660.0
13929	<2.0	<0.02	87.0
13930	<2.0	<0.02	115.0
13951	5.0	0.12	179.0
13952	3.0	0.02	77.0
13953	2.0	<0.02	107.0
13954	2.0	<0.02	82.0
13955	2.0	<0.02	46.0
13956	<2.0	<0.02	15.0
13957	<2.0	0.02	98.0
13958	2.0	0.02	197.0
13959	<2.0	0.02	185.0
13960	2.0	<0.02	61.0
13961	3.0	0.03	134.0
13962	2.0	<0.02	49.0
13963	<2.0	0.03	158.0
13987	<2.0	0.17	180.0
13988	<2.0	0.12	187.0
13989	<2.0	0.09	129.0
13990	<2.0	0.06	106.0

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WORK ORDER: 7528D-91

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: DRILL CORE

SAMPLE NUMBER	FIRE ASSAY AU PPB	FIRE ASSAY AG PPM	CU PPM
13991	<2.0	0.08	185.0
13992	<2.0	0.02	125.0
13993	2.0	0.15	177.0
13994	<2.0	0.14	151.0
13995	<2.0	0.23	180.0
13996	<2.0	0.05	123.0
13997	<2.0	0.04	122.0
13998	2.0	0.08	143.0
13999	<2.0	0.1	105.0
14000	<2.0	0.11	118.0

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L 52 + 00 N
L 50 + 00 N
L 48 + 00 N
L 46 + 00 N
L 44 + 00 N
L 42 + 00 N
L 40 + 00 N
L 38 + 00 N
L 36 + 00 N
L 34 + 00 N
L 32 + 00 N
L 30 + 00 N
L 28 + 00 N
L 26 + 00 N
L 24 + 00 N

28 + 00 E
30 + 00 E
32 + 00 E
34 + 00 E
36 + 00 E
38 + 00 E
40 + 00 E
42 + 00 E
44 + 00 E
46 + 00 E
48 + 00 E
50 + 00 E
52 + 00 E
54 + 00 E
56 + 00 E
58 + 00 E
60 + 00 E
62 + 00 E

Zone 5
Zone 4
Zone 1
Zone 2
Zone 3

WESTERN ANOMALY
MAIN ANOMALY
CENTRAL ANOMALY
SOUTHERN ANOMALY

91-01
91-02
91-03
91-04
91-05
91-06
91-07
91-08
91-09

LCP AOK 1,4
AOK 1 | AOK 4

AOK 3
LCP AOK 2,3
AOK 2

AOK 6
LCP AOK 6, 7
AOK 7

LCP AOK 8
AOK 8

LCP AOK 9
AOK 9

LCP AOK 5
AOK 5

AOK

LAKE

Camp

WITTSICHIGA CREEK

Germansen Highway

Legend

- Highway
- Trail
- Pond
- Swamp / Alders
- Creek

MAGNETIC ANOMALIES (TOTAL FIELD)

HIGHS

- Greater than 59,000 nanoteslas
- Greater than 58,800 nanoteslas
- Greater than 58,600 nanoteslas

LOW

- Less than 58,000 nanoteslas

SOUTHERN ANOMALY — MAGNETIC ANOMALY DESIGNATION

CHARGEABILITY ANOMALIES (n=3)

- Greater than 8.5 milliseconds
- Greater than 7 milliseconds

RESISTIVITY LOWS (n=3)

- Less than 150 ohm-meters
- Interpreted fault
- Gold dispersion train
- Claim line
- LCP ← Legal corner post
- AOK 6 ← Claim line
- Refurbished trail (existing)
- New trail/drill road
- 91-01 Drill hole location and number

inches
centimetres
This reference scale bar has been added to the original image. It will change if the image is resized as the image, therefore it can be used as a reference for the original size.

100 0 100 200 300 400 500
meters

TKR	TKR	TKR	TKR	TKR	TKR	TKR

TAKLA STAR RESOURCES LTD.

AOK PROJECT

DRILL HOLE LOCATIONS DRILL TARGETS

Scale: 1:5000	Surveyed by: J.A. Climie
N.T.S.: 93 N/1	Drawn by: M.A. Paridaen
Plate:	Figure No: 4