ABERFORD RESOURCES LTD.

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

TAH GROUP

CONSISTING OF THE TAH 15, 18 and 19 CLAIMS

Alberni Mining Division

NTS 92E/15E

Between 40° 48' and 49° 50' North Latitude
126° 31' and 126° 35' West Longitude

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,058

J. E. Robinson

Report No. 23-83

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A. INTRODUCTION

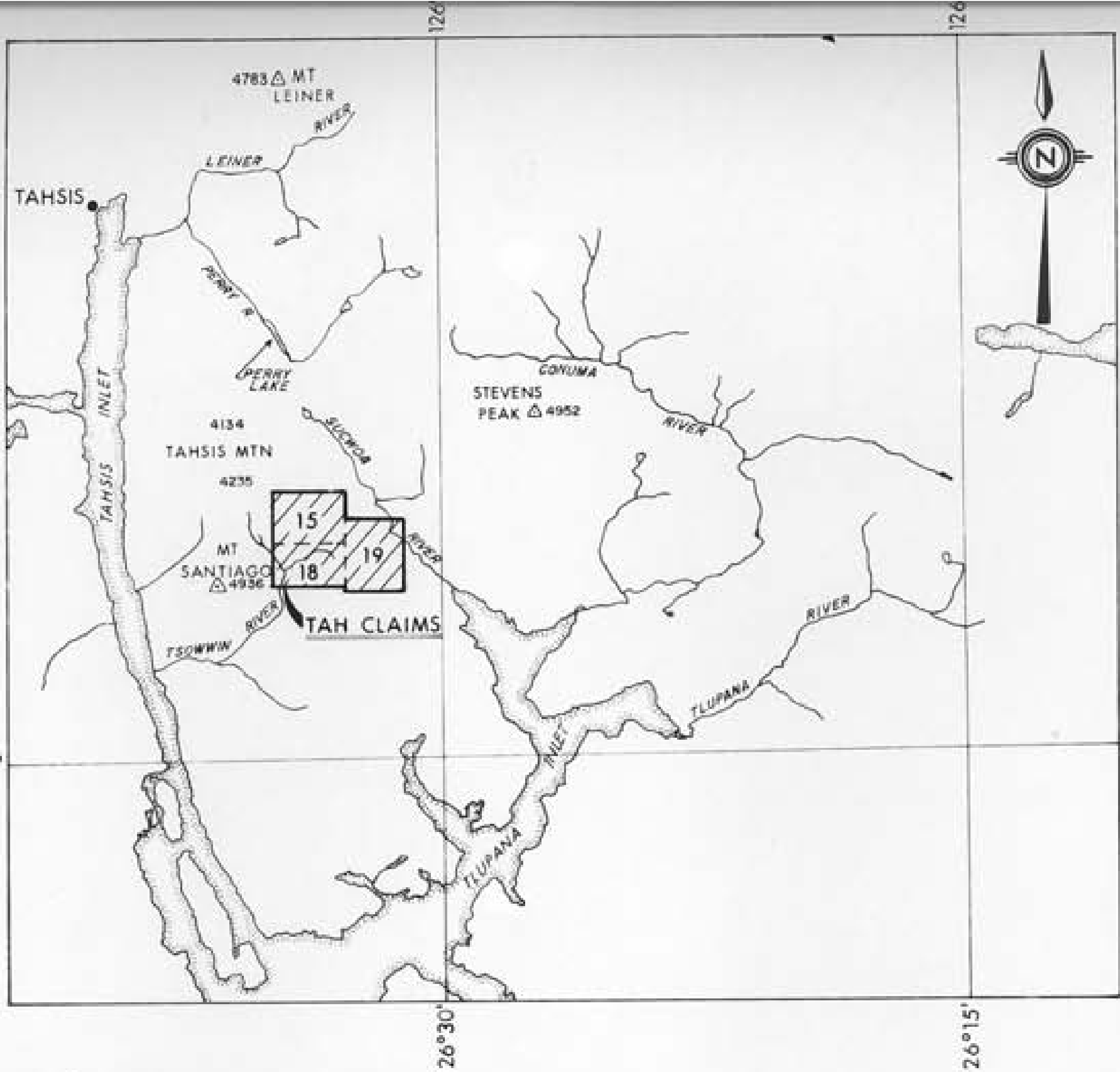
1. Geography and Physiography

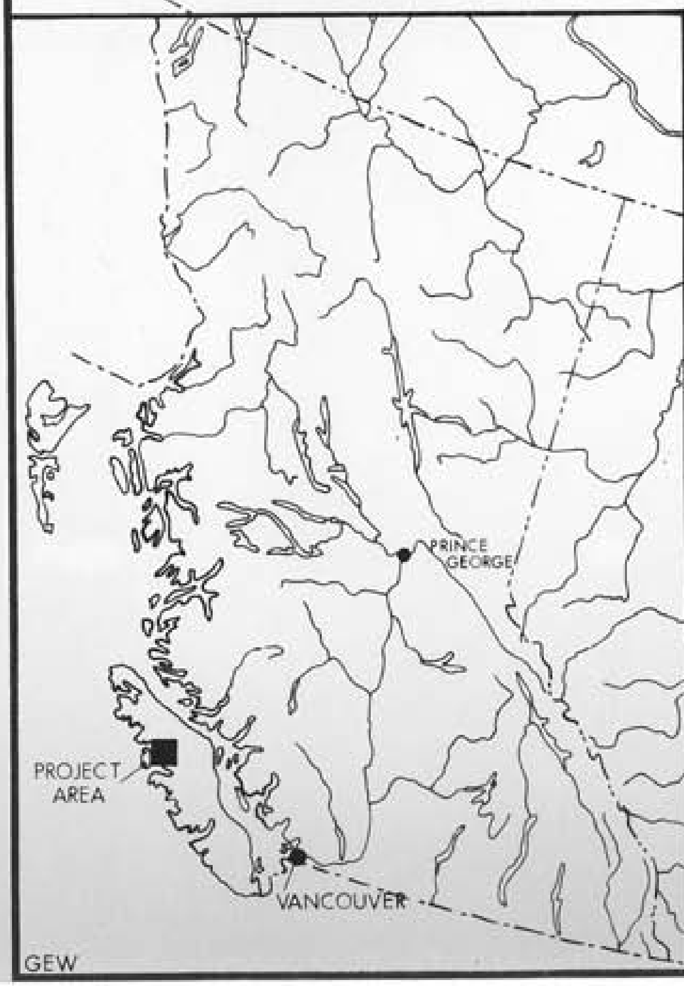
The TAH Claims are located in the Vancouver Island Ranges south of Tahsis, British Columbia (Figure 1). Access to the area is via the Head Bay Forest Road, a gravel road connecting Tahsis with Gold River. Numerous logging roads provide access to the claims, and to much of the area adjacent to the claims. The Stoltze main line and its branches access the eastern and southern portion of the claims, and connect with the Tsowwin main line whose branches access the western portion of the property. The Sucwoa and Hisnit main lines access the extreme southeastern portion of the claims.

Timber rights in the area are controlled by the Tahsis Company who are actively logging the area, and will continue to do so for at least three years. The Tahsis Company has proven itself most helpful by freely granting access to restricted active logging areas, provided that exploration crews exercise caution to avoid mishap with the logging operations.

The exceptionally dense virgin forest in the area consists of Western Hemlock, Balsam Fir, Douglas Fir and Sitka Spruce. In the cut areas, the forest is reduced to a treacherous tangle of stumps and branches; these areas are a nightmare to traverse through because burning is not carried out. Traversing in the mature forest is remarkably easy, however the annual rainfall of up to 500cm per year provides for a thick, rapid growth of moss which effectively hides rock outcrop. Exposure in the area is limited to road cuts, the faces of shear cliffs and creek beds.

Slopes are steep on the property with elevations ranging from 1150m above sea level in the northeast corner of TAH 15 to about 50m above sea level in the Sucwoa River valley. Permanent and intermittant creeks are abundant and can be transformed from small trickles to raging torrents with a two day rainfall. Impassable waterfalls and deep canyons are common, and in clear cut areas, creek beds are usually choked with logging debris.





CLAIM	RECORD NO.	UNITS	RECORD DATE	IN GOOD STANDING
TAH 15	756	20	MAR. 10/80	MAR. 10/84
18	759	15	"	"
19	760	20	"	"

km 5 0 5 10 15 km

Revised: MAY, 1983

Figure 1

ABERFORD RESOURCES LTD.

LAND STATUS
TAH 15, 18 & 19
VANCOUVER ISLAND B.C.
DISSEMINATED GOLD PROJECT

DATE	SCALE	NTS	DRAWING NO.
OCT, 1980	1:250,000	92 E/15	A - 1004

PROFESSIONAL GEOLOGIST ... W. SMEE ... ALBERTA

2. Property Definition

(a) Land Status and History

The TAH Group comprises the following three claims in the Alberni Mining Division:

Name	Units	Recording Date	Record No.	Tag No.	In Good Standing Until
TAH 15	20	March 10, 1980	757	39699	March 10, 1985
TAH 18	15	March 10, 1980	760	39703	March 10, 1985
TAH 19	20	March 10, 1980	761	39704	March 10, 1985

The TAH 1-21 claims were originally staked by a predecessor company of Aberford Resources Ltd. in 1980. The TAH 1 claim was allowed to lapse in 1981. The TAH 2-14, 16, 17, 20 and 21 claims were allowed to lapse in 1983, and a cash-in-lieu payment was made at that time to keep TAH 15, 18 and 19 in good standing until March 10, 1984. Assessment work was performed from September 8 to October 4, 1983. During this period the TAH 22 claim was staked.

The choice of the Tahsis area as an exploration target resulted from a literature study of disseminated gold deposits. The study delineated the economic, physical, geological and geochemical characteristics of the ore type. A complete inventory of gold and metals associated with the target deposit was complied, and a study was made of rock groups presumed favourable as a host for these deposits.

During a portion of August and September 1979, field studies were undertaken on Vancouver Island to confirm the area's potential. The purposes of the field work were examination of lithologies to confirm their favourability, selection of the best exploration methods and the determination of operational logistics. During the course of this field work, several streams were sampled using heavy mineral sampling methods to test the usefulness of the technique. The method proved very effective in identifying anomalous drainages.

In 1981, two phases of follow-up work were performed. Early in the year, reconnaissance and follow-up heavy mineral, stream sediment, and rock chip sampling further delineated anomalous drainages, and began to identify host lithologies. In the summer of 1981, a program of rock chip geochemistry and geological mapping was completed.

(b) Regional Exploration History

In the Zeballos Gold Camp, located about 25 kilometres northwest of the property, 13 deposits produced a total of 287,811 ounces of gold and 124,700 ounces of silver from as early as 1930 until 1948 (Hoadley, 1953). One producer, Privateer, accounted for 154,381 ounces of gold and 60,878 ounces of silver. A total of 285,771 tons of ore was mined from Privateer's five main veins, of which 158,332 tons was milled. Twelve other producers accounted for the balance of production with total outputs ranging from 54,000 ounces of gold to 5 ounces of gold.

All of the 33 published lode gold deposits and occurrences in this camp report gold in association with quartz veining. Other associated minerals included pyrite, arsenopyrite, calcite and chalcopyrite with occassional galena and sphalerite. The geology of the Tahsis area is similar to the Zeballos camp, making it a favourable exploration target.

Two old exploration targets occur within the present boundaries of the TAH claims. The TAH 18 claim is centred on the workings of the old Vivian Group (see Plate I). Hoadley (1953, pp. 54) reported that the Vivian claims were staked in 1939 and abandoned in 1940; a considerable amount of exploration work was done during this period. A 15 metre adit, now collapsed, followed a shear zone containing quartz and calcite. Originally reported as yielding only a trace of gold, 2 samples of quartz obtained from the ore dump in 1983 overaged 3.537 oz/ton Au and 10.53 oz/ton Ag. A quartz vein exposed along strike in a branch of the Tsowwin River 60 metres to the southeast (where a shaft was supposedly located) reportedly assayed 2 oz/ton Au. Corresponding samples taken in 1983 averaged only 0.148 oz/ton Au.

Muller (1981) noted a minor gold producer, "Zeballos", on the west side of Head Bay. Five tons of ore from this vein deposit was apparently milled yielding 7 ounces of gold, 3 ounces of silver and 7 pounds of copper. This may be the same property referred to as the Oh Boy by Stevenson (1950), where gold was found in quartz veins with chalcopyrite, pyrite and sphalerite, which followed shears in greenstone.

Other notable gold occurrences include the Independence (Harlow) Group which was located on the west side of the Tahsis River valley, 4km from tidewater. The 4 claims were staked in 1938, then optioned to Bralorne Mines in 1939 who subsequently dropped the option (Hoadley, 1953). The two veins in this occurrence yielded the following values: 1.2 oz/ton Au maximum, 0.02 oz/ton Au average; 0.4 oz/ton Ag maximum, 0.07 oz/ton Ag average. Stevenson (1950) noted three occurrences on Muchalat Inlet, located about 35 kilometres southeast of the property: the Baltic and the Ash on the south shore of the Inlet, and the Burman River gold syndicate property at the head of the Inlet. Finally, the Mohawk Group, staked in 1939, is located on the south side of the Tsowwin River about 5 kilometres from Tahsis Inlet. The claims covered a 30 centimetre cockscomb and banded quartz vein containing minor pyrite. No record of gold content has been found.

In addition to the lode gold deposits, a gold bearing copper skarn also occurs near the property. This occurrence is located about 1.5km northwest of the town of Tahsis, and was originally known as the Geo or Star of the West. In 1962, 1500 lbs of ore was milled, which assayed 0.18 oz/ton Au, 0.4 oz/ton Ag and 5.2% Cu (Muller, 1981).

Three crown granted claims, the Glengarry, Stormont and Texas, are located within the TAH 22 claim, and cover a magnetite skarn deposit adjacent to an unmapped diorite intrusive. Though the claims were staked in 1902 and crown grants issued in 1909, the property was by and large neglected until 1951 when Japanese interests optioned the claims from Canadian Collieries (Dunsmir) Ltd., and began surface exploration and diamond drilling (Hoadley, 1953). Indicated iron reserves on the crown grants are 303,912 tonnes. Published average grades conflict: the MINDEP File (#029-001, B.C. Ministry of Energy, Mines and Petroleum Resources) indicated 42.7% iron while Muller (1981) indicated 66.1% iron. Production was carried out in the early 1960's with 62,500 tons of ore milled yielding 25,000 tons of magnetite concentrate.

3. 1983 Program Summary

The 1983 field program concentrated on detailed rock sampling to define the extent of gold-silver mineralization discovered during the 1981 field season. During the period September 8 to 30, 211 rock chip and channel samples, 29 heavy mineral panned concentrates, and 7 stream sediment samples were taken on the TAH 15, 18 and 19 claims. Additional geological mapping updated the existing property geology map.

4. Land Status Adjacent to the TAH Claims

Only one claim has been staked recently in the vicinity of the TAH claims. Records for this claim, whose legal corner post is located about 300m southeast of the 5S-OW corner of TAH 22, are as follows:

Claim Name:	Elaine
Record No:	1452
Record Date:	July 1, 1982
Transferred to:	Crystal Mountain Resources Ltd. on August 23, 1982
Due Date:	Not yet available

This claim apparently covers the old Zeballos or Oh Boy property on the west side of Head Bay. Work was performed in July, 1983 and is pending approval. A picketed grid now exists on the Elaine claim so it is expected that this claim will be in good standing for several years.

The three crown granted claims overstaked by the TAH 22 claim are the Glengarry (L410), Stormont (L411) and Texas (L412) all having folio #2283 with the British Columbia Land Office. Taxes for these three crown grants were last paid by: Weldwood Canada Ltd., P.O. Box 2179, Vancouver, B.C.

B. GEOLOGY

1. Regional Geology

The Tahsis area is chiefly underlain by rocks of the Vancouver and Bonanza Groups (Table 1). The former consists of a thick pile of Upper Triassic age basaltic volcanics (Karmutsen Formation) overlain by Upper Triassic age carbonate, pelitic and sediments composed of volcanic detritus (Quatsino and Parson's Bay Formations). The latter consists of a Lower Jurassic age sequence of basaltic to dacitic effusive and pyroclastic volcanics with minor intercalated sediments.

The Vancouver and Bonanza Groups have been intruded by two ages of plutonic rock. The Island Intrusions are granitoid stocks and batholiths of Early Jurassic age, and primarily contact rocks of the Karmutsen Formation and Bonanza Group. Small Early Tertiary age stocks, the Catface Intrusions, are of a general quartz dioritic composition. Migmatitic units of the Lower Jurassic age West Coast Complex, possibly cogenetic with both the Island Intrusions and the Bonanza Group, outcrop to the south of the property.

The geology of the Tahsis area has been mapped on two occasions by the Geological Survey of Canada. J.W. Hoadley's report (1953) provides a detailed description of the local geology and early exploration. Better access to the map area has lead to further study, and an updating of Hoadley's lithological nomenclature.

In their G.S.C. Paper 80-16, Muller, Cameron and Northcote finalized the separation of the Bonanza volcanic rocks into a distinct group by excluding the former Bonanza Subgroup from the Vancouver Group. The Parson's Bay Formation, previously considered the Lower Sedimentary Division of the Bonanza Subgroup, is now considered to be the youngest formation within the Vancouver Group. This nomenclatural change sets apart the Triassic tholeiite-carbonate-clastic sequence of the Vancouver Group from the Jurassic basalt-andesite-dacite-rhyolite-sediment assemblage of the Bonanza Group (Muller, 1981).

(a) Vancouver Group

(i) Karmutsen Formation

The Karmutsen Formation, a succession of tholeitic basalts, is the thickest and most extensive formation on Vancouver Island, and has been calculated at between 4500 and 6000 metres thick (Muller et al, 1981). It is divisible into a lower portion of pillow lavas (2450 to 2750 metres), a middle member of pillow breccias and aquagene tuffs (600 to 900 metres), and an upper portion of basaltic flows. Though Karmutsen volcanics are generally disconformable with the overlying Quatsino Formation, occurrences of thin limestone and argillite intercalations within the Karmutsen's upper division indicate that the two formations are locally conformable. To account for the Karmutsen oceanic-type basalt overlying sediments of the Paleozoic Sicker Group, Muller (1977) has suggeted that the Karmutsen volcanics originated in a rifting basin at the continental margin.

(ii) Quatsino Formation

The Quatsino Formation consists of thick bedded to massive, brown-grey to light grey limestone that weathers grey to white. It is fine grained to microcrystalline and commonly contains stylolytes. Thickness of this formation has been estimated at about 700 metres. Approaching the gradational contact with the overlying Parson's Bay Formation, the Quatsino limestone becomes darker brown, and intercalations of calcareous pelite appear. This formation represents carbonate reefs which formed on a shallow turbulent shelf of Karmutsen volcanic rocks.

(iii) Parson's Bay Formation

The Parson's Bay Formation, a succession of fine to coarse grained sediments, represents a transition from a shallow, turbulent shelf to a deeper, nonturbulent anaerobic environment (Muller, 1981). Though not examined in detail in the Tahsis area, Muller et al (1974) described a 400 metre section of Parson's Bay rocks within the Alert Bay map area north of Tahsis. Muller (1981) considered the formation to be much thicker in the Tahsis area, consisting mainly of brown weathering, black siltstone and shale with minor tuffaceous beds. Hoadley (1953) considered this formation to be 150 to 300 metres thick in the vicinity of the property.

(b) Bonanza Group

The Bonanza Group was formed in a volcanic island arc environment (Muller, 1981), and shows great lithological variation. This group consists of interbedded lava, breccia and tuff comprising basaltic-andesitic-dacitic-rhyolitic compositions. Common rock types are green and maroon amygdaloidal, massive or agglomeratic lava, commonly containing pink plagioclase phenocrysts, and plagioclase-pyroxene crystal tuff.

(c) Westcoast Complex

Rocks of the Lower Jurassic age Westcoast Complex are considered to have been derived by metamorphism and migmatization of pre-Jurassic age volcanic and sedimentary rocks. The complex has been divided into two units: the Migmatite Unit, including quartz diorite and tonolite with a variety of migmatites which occurs south and southeast of the property; the Amphibolite Unit, including metavolcanic and meta-sedimentary rocks of low amphibolite metamorphic grade. The latter unit has a limited distribution.

(d) Island Intrusions

The Early Jurassic age Island Intrusions comprise granitoid stocks and batholiths which underlie much of the area in the vicinity of Tahsis. The largest body is the Muchalat Batholith which occurs about 12km east of the property. This batholith covers $750km^2$ and is nearly 20km wide. Three northwest trending intrusions that are much narrower than the Muchalat batholith also occur in the area: the Nootka and Ehatisah batholiths lie 12 to 24 kilometres to the southwest and the Sydney batholith occurs about 25 kilometres to the southeast.

These intrusions range from granodiorite to granite in composition: potassium-felspar >1/3 of the total feldspar; quartz >20% of light coloured constituents. The rocks of the Muchalat Batholith are predominantly hornblende < biotite granite, and hornblende < biotite granodiorite. Granite ranges from aplitic to medium grained with dull grey to smoky quartz and white or rarely pink feldspar. Biotite, commonly chloritized, occurs as small flakes, with hornblende as indistinct patches. Alteration of feldspars to chlorite, epidote and sericite is common. Granodiorite lacks the distinctive smoky quartz. Dioritic rocks occur in contact areas and contain mafic inclusions. They are generally finer grained with hornblende >

biotite. Rocks of the other three batholiths are basically the same but show lower quartz and potash feldspar content and increased plagioclase.

The Island Intrusions have been hypothesized as being cogenetic with both the Westcoast Complex and the Bonanza Group. In theory, the granodioritic material of the Island Intrusions was produced by the partial melting of pre-existing Sicker and Vancouver Group rocks. Cogenesis with the Bonanza Group is suggested by the occurrence of the arealy restricted facies of the Bonanza Group (ie: vent and cone rocks and acidic (viscous) flows) in the immediate vicinity of the stocks, with alluvial or epiclastic facies occurring at greater distances from the intrusions (Muller, 1981, pp. 25).

(e) Catface Intrusions

The Catface Intrusions, dated from Middle Eocene to Early Oligocene age by the potassium-argon method, comprise small, generally dioritic stocks that are known in many parts of Vancouver Island. Previously referred to as the Sooke Intrusions, the name was changed to avoid confusion with the Miocene age Sooke Formation. Generally, the intrusions are massive, light coloured, fine to medium grained, equigranular to locally porphyritic granitoid rocks. Jointing is often regular and closely spaced and exfoliation produces rounded "hummocky" outcrops (Stevenson, 1950).

Catface rocks are difficult to distinguish from the Island Intrusions on the basis of field observations. They are generally unaltered, have about 10% small biotite flakes and hornblende patches <2mm across, within a granular quartz-feldspar aggregate of 2-4mm crystals. Subhedral plagioclase crystals 2-5mm in size generally form over one half of the rock, with finer grained quartz $\pm$ potassium-feldspar occurring interstitially. Plagioclase and quartz are generally clear, but the potassium-feldspar is commonly altered to cloudy perthite. Accessary apatite is common (Muller, 1981, pp32).

(f) Dykes and Sills

Numerous dykes and sills occur in the vicinity of the TAH claims. These intrusives have been tentatively classified into three groups. The oldest are the mafic feeder dykes for the Bonanza volcanics. The second group is the most abundant and diverse consisting of mafic, feldspar porphyry, and felsite dykes. These are believed to be genetically related to the Tertiary age Catface Intrusions, with the felsic dykes being late-stage differentiates. The third and youngest group comprises very dark green mafic dykes which appear to cross-cut all other lithologies (Chabot, 1982).

2. Structure

The region is underlain by broad, northwest trending anticlinoria and synclinoria with periods of 10-15 kilometres. The geological structure in the vicinity of the TAH claims, which occur on a southwest dipping monocline, is dominated by block faulting. The block faults are generally steep with unidentified vertical and transcurrent offsets. The faults are represented by narrow, linear shatter zones which produce prominent topographic expressions such as valleys, inlets, lakes and V-shaped notches in mountain ranges. The fault system results from the overprint of several fracture patterns with characteristic directions.

The most prominent fracture set is produced by the early Mesozoic age north trending faults. Thasis Inlet itself is the result of one such fault, and another proceeds through the Hecate Channel to the Zeballos area where it is truncated by the Tertiary age Zeballos pluton.

Less prominent, but perhaps more important in terms of economic geology, are the late Jurassic to early Eocene age northwest trending faults. These faults follow the main Pacific coastline and cut both Jurassic and Tertiary age rocks with uplift generally on the southwest side. This fracture set apparently resulted from underthrusting of the late Jurassic to early Cretaceous age Pacific Rim Complex under the

Paleozoic to early Mesozoic age crust in a right lateral sense as the Pacific plate moved north with respect to the North American plate. The Sucwoa River valley, immediately east of the TAH claims, is the expression of one such fault. Structures with this trend host mineralization on the TAH property (Muller, 1981, pp38).

A third set of northeast trending faults is generally confined to coastal areas. Several of these Tertiary age faults occur in the vicinity of the TAH claims. The Santiago Mountain fault extends from Tahsis Inlet along Santiago Creek, crossing the south flank of Tahsis Mountain, and across the Sucwoa River Valley. This fault forms the southeastern contact of two Catface Intrusive bodies; one occurs just north of Santiago Mountain and the other is the Perry Lake stock which underlies the northeastern flank of Tahsis Mountain. Tlupana Inlet to the southeast of the claims is another expression of a northeast trending fault. Northeast and east trending faults host the richest mineralization in the Zeballos gold camp.

3. Property Geology and Structure

The TAH Group of claims is chiefly underlain by rocks of the middle to upper Triassic age Vancouver Group, the lower to middle Jurassic age Bonanza Group as well as minor diorite intrusions tentatively assigned to the Tertiary age Catface Intrusions.

The Karmutsen Formation forms the lowermost portion of the Vancouver Group, and underlies a large area east of the claims. On the property, it has only been located in the northeast corner of TAH 19. The basaltic to andesitic flows are in conformable contact with the overlying Quatsino Formation to the west.

Limestone and shale of the Quatsino Formation form the majority of outcrop on the property. It is generally grey, stylolytic and massive to thick bedded. Sand content is variable and its colour varies to brownish with increased clay content, especially near the top of the formation.

Carbonate infilling of secondary porosity results in a distinctive mottled brown and white limestone. Peripheral to the dioritic intrusions, the limestone grades from coarse grained recrystallized calcite to skarn at the intrusive contact.

The Quatsino limestone is cross-cut by numerous mafic dykes throughout the property. Early stage dark green dykes presumably fed the overlying volcanic rocks; occassional interbedded flows can be seen. Limestone intruded by dykes generally maintains its bedding angle, but "rafting" of limestone blocks may contribute to disruption of bedding orientation.

The Parson's Bay Formation is gradational with the underlying Quatsino Formation. On the property, it is most often comprised of bedded to thin bedded dark brown to black argillite. This lithology is seen underlying the Bonanza Group capping the ridge on the TAH 15 claim, as well as forming thin interbeds within the upper portion of the Quatsino limestone. Within the north branch of the Tsowwin River, thin bedded calcareous siltstone to calcarenite occurs near the contact with the overlying Bonanza Group.

Bonanza Group rocks examined on the property fall into two broad facies: distal, finer grained tuffs with interbedded flows, and proximal, coarse grained lapilli to lapilli-block tuffs. The former type is the dominant volcanic rock on the western portion of the claims. Massive, dark green andesitic crystal tuffs and lithic crystal tuffs are most common. Laths of feldspar and, less commonly, tuffaceous fragments can be seen within a fine grained, chloritic groundmass. A distinctive lithic-crystal tuff is exposed in the upper quarry on the TAH 15 claim and again in the lower quarry on the TAH 18 claim. Its distinguishing feature is fragments of a light blue, rhombohedral or hexagonal crystal that has a submetallic lustre.

Flow rocks are generally lighter green and often contain open vesicles or calcite amygdules. Nearly all of the Bonanza volcanic rocks contain calcite in the groundmass, causing the rock to freely effervesce in dilute

HCl. The calcite is presumably derived from the underlying Quatsino Formation.

Exposures of the distal Bonanza Group facies can be seen in the upper and lower quarries east of the north branch of the Tsowwin River, in the east branch of the Tsowwin River at the site of the Old Vivian workings, and in a quarry on the Tsowwin River main line on the TAH 18 claim. Bonanza volcanics also cap the northwest trending ridge in the northwest corner of the TAH 15 claim. This exposure was not examined during the 1983 program.

The proximal facies of the Bonanza Group is exposed on the southwest portion of the TAH 19 claim, and continues off the property to the south. Generally, these rocks comprise lapilli size, angular to subangular fragments of tuffaceous rock in a fine ash matrix. Only one or two types of rock fragments generally occur, and they often are of nearly equal size (ie: generally of 2-3cm), with occassional breccias containing 10-15cm fragments. Outcrop of this facies has been previously mapped south of the southwest corner of the TAH 18 claim.

Two intrusive bodies, tentatively assigned to the Tertiary age Catface Intrusions, have been located on the property. These are of similar composition, medium grained quartz diorite and diorite to monzonite, and contain up to 20% accessory magnetite. One body occurs near the confluence of the branches of the Tsowwin River. This body grades from hornblende diorite in the west to hornblende monzonite towards the east. Limestone blocks, volcanic rocks and mafic dykes are included.

A second, much more extensive body is located just off the southeast corner of the claim group on what is now the TAH 22 claim. This intrusive extends at least as far as Head Bay to the southeast. It contacts the Bonanza Group to the south where dioritic dykes intrude and assimilate fragments of volcanic rock. To the north, it is in contact with Quatsino limestone where the contact metamorphic halo, ranging from slightly recrystalized calcite to skarn at the contact, is about 50 metres wide.

This intrusion is likely responsible for the Head Bay magnetite skarn deposit that exists on the north side of the intrusion.

Dykes and sills on the property present a complex problem of geological mapping and interpretation. Most noteworthy of the dykes are the felsic series because they contain elevated gold, arsenic and, to a lesser extent, antimony (see reports 13-81 by Chabot and White, and 8-82 by Chabot). These are orange brown weathering, fine grained quartz-feldspar rocks containing up to 5% visible pyrite plus minor arsenopyrite. The dykes appear to have been structurally emplaced as evidenced by moderate shearing and adjacent fault gouge. During the 1981 program, these dykes were sampled in detail and averaged 500ppb Au, with the highest value being 2500ppb Au. Chabot reports a preferred direction of 030° to 050° for the felsic dykes.

Structurally, the property is quite complex. The Quatsino formation requires fault or fold repetition along a north-northwest trend to account for an observed thickness of at least twice the 750 metre average thickness indicated by Muller et.al. (1981) for this formation. A block fault is proposed because the generally southwest dip of Quatsino strata is uninterrupted across the strike of this formation. Uplift on the southwest side of such a fault, which is consistent with the regional expression of northwest trending faults, would account for the observed increase in thickness. Possible evidence of the proposed fault can be seen in a highly sheared and contorted shale interbed within the Quatsino Formation at the site of rock sample JER-115 (Plate 2, east sheet).

Structural complexity is also evident on the western portion of the claims along the north branch of the Tsowwin River. At least one northwest trending fault, with uplift on the southwest side is evident on the east side of the river. Evidence of this fault can be seen at several locations on the road by shearing adjacent to unconformable contacts, and by the drop-off of outcrop into deep overburden. Northeast of this fault, the following outcrop sequence can be seen leading to the top of the ridge in the northwest corner of TAH 15 (Plate I, west half): Bonanza Group - Parson's Bay Formation - Quatsino Formation - Parson's Bay Formation - Bonanza Group. Though a second subparallel fault may exist to the east which would produce this sequence the apparent repetition of rock types can be accounted for given the general dip of all rocks in the area (about 35° to the southwest) and the present topography. This fault also structurally repeats a portion of the Quatsino limestone within this river valley, and truncates a sliver of Bonanza volcanics which is exposed in the upper and lower quarries (TAH 15 and 18).

Northeast trending cross faults may be important features for repeating rock units in a north-south direction, and for truncating other structures. Such faults are evident in the creeks draining the east side of the Tsowwin River's north branch. Fault blocks of Quatsino limestone with diverse bedding attitudes have been produced, and a right lateral horizontal displacement of 40 metres was measured in one creek bed. The marker unit used to measure the displacement was a severed felsite dyke, indicating that emplacement of these dykes predates the faulting. Just to the south, the extension of Bonanza volcanics tentatively mapped as being a continuous feature may actually be discontinuous, with separate blocks being faulted in along this northeasterly trend.

C. MINERALIZATION AND ALTERATION

1. Regional Mineralization and Alteration

Mineral occurrences in the vicinity of the TAH property consist primarily of high temperature iron and copper skarn deposits, and of gold-quartz veins. The size of the skarn deposits has thus far rendered them unimportant, but the gold potential of the area is well documented; there are numerous, small but rich known gold-quartz vein occurrences. The most important area is the Zeballos Mining Camp.

The most productive gold-quartz veins in the Zeballos camp are contained within steeply dipping tension fractures striking in an easterly to northeasterly direction (Stevenson; 1950). All of the 13 significant producers in this camp cited by Hoadley (1953) contain veins of this trend. Northwesterly trending fissures, considered by Stevenson to have resulted from shearing, are generally unproductive.

Gold bearing quartz-sulphide veins in the Zeballos camp generally occur in well defined, narrow fault zones (rarely over 0.3 metres wide) of uniform strike and dip. The veins are generally either cockscomb quartz +/- sulphides +/- carbonate (calcite and less ankerite) filling open spaces, or banded with alternating quartz and sulphides +/- carbonate. Pyrite, sphalerite, arsenopyrite, chalcopyrite, galena and pyrrhotite are the most common sulphides present. Visible gold is often found in the veins, and gold varies with the sulphide content. Stevenson (1950) noted that the presence of gold appears to coincide with the occurrence of sphalerite and galena.

In the Muchalat Inlet area, mineralization is of a similar nature. The Baltic property has a 30 centimetre gold bearing vein consisting of pyrite, chalcopyrite and sphalerite which follows a shear in granodiorite. Muller et al. (1981) indicates production of 143 tons of ore from this property which yielded 179 oz Au and 321 oz Ag. Average grades ran 1.25 oz/ton Au and 2.24 oz/ton Ag. Maximum assays showed 6.9 oz/ton Au and 7.1 oz/ton Ag. On the Ash property, a 7-15 centimetre quartz vein containing free gold and chalcopyrite follows a break in quartz diorite. The Burman River property contains lenses of chalcopyrite, of sphalerite, and of quartz + chalcopyrite + pyrite. Stevenson (1950) stated that the combined production from the Independence, Oh Boy, Baltic, Ash and Burman River properties totalled 150 tons of ore which yielded 190 oz Au and 325 oz Ag.

Alteration minerals within the volcanic rocks of the Zeballos camp include chlorite, amphibole, epidote, zoisite and calcite which resulted from a general, low grade metamorphism. In addition, a distinctive apple-green lime-silicate alteration occurs in several localities (Stevenson, 1950). These occur in elliptical patches 0.5 - 15 centimetres long, consisting of fine grained quartz, diopside, epidote and andesine +/- wollastonite +/- pyrrhotite. Wall rock alteration along veins is also common. Diorite and granodiorite are commonly altered to sericite and chlorite. Volcanic rocks have been altered to a light buff, very dense rock containing disseminated pyrite cubes.

2. Property Mineralization and Alteration

Two modes of occurrence for gold mineralization have been identified on the TAH property. The first is in quartz veining similar to that of the Zeballos camp. These generally northwest trending veins fill narrow faults or shear zones within the Bonanza volcanic rocks, and occur as fracture filling within a diorite stock.

Gold-quartz veins within the volcanic rocks are generally on the order of 5-10 centimetres wide, occurring as a single vein or as a number of narrow, sheeted veins separated by thin smears of gouge. Individual veins greater than one centimetre wide show cockscomb texture, which is better developed in wider veins. Open spaces are commonly coated with a black, sooty material. The quartz is generally clear, but has a milky white appearance in hand specimen. Weathered surfaces are golden-yellow to orange-red. Sulphides are minor constituents and consist of pyrite, arsenopyrite and chalcopyrite. A grey mineral having a metallic lustre, possibly arsenopyrite, occasionally fills small vugs. The shears containing mineralized quartz veins are up to 2 metres wide with shattered material ranging in size from gouge to 4 cubic centimetre fragments. These shears have associated high arsenic values (>1000 ppm) which can be carried into the surrounding competent rock. Unfortunately, the wall rock rarely contains significant gold mineralization.

Two exposures of gold-quartz veining in volcanic rocks have been identified on the property: the Vivian workings, and a quartz filled shear about 100 metres up the road from the lower quarry on TAH-18. Both of these veins strike about 320° and dip steeply to the east. It is not certain if these are separate systems, or if they represent the same system off-set by a cross fault. Samples of a 2-3 centimetre quartz vein from the 5-10 centimetre shear near the lower quarry averaged 2.241 oz/ton Au and 1.345 oz/ton Ag. Two panned rock concentrates were taken from this shear. The first, taken from surface, assayed 30.3 oz/ton Au and 18.1 oz/ton Ag (Sample P-5). The second was excavated from deeper in the shear, and contained a silvery metallic mineral that is considered to be electrum. This panning assayed 177.7 oz/ton Au and 104.8 oz/ton Ag (Sample 15406). Samples of sheeted quartz veining from the Vivian ore dump averaged 3.537 oz/ton Au and 10.53 oz/ton Ag. Samples of the Vivian system exposed in the Tsowwin River 100 metres along strike averaged 0.148 oz/ton Au and 0.215 oz/ton Ag in a 20 centimetre shear of sheeted quartz. The gold and silver mineralization was initially thought to occur as tellurides, but no tellurium was detected.

An exposure of an auriferous quartz-sulphide vein in diorite occurs on what is now the TAH-22 claim near the southeast corner of TAH-19. The width of this vein varies from at least 20 centimetres to 60 centimetres along its 23 metre exposed length. A total of 15 rock samples were taken from this vein, which averaged 1.598 oz/ton Au, and ranged from a trace to 8.228 oz/ton gold. Silver averaged 0.378 oz/ton. Pyrite comprises at least 50% of the vein. Where the vein is thickest, quartz and pyrite in nearly equal proportions are banded in appearance. Discrete pods of massive pyrite are also present. The two samples which yielded the highest assay values for gold (7.374 oz/ton average) were from massive pyrite containing rounded fragments of quartz. The dioritic body, tentatively classified as a Tertiary age Catface Intrusive (see Property Geology) is auriferous, at least adjacent to the mineralized vein. A 30 centimetre chip sample taken beside the banded quartz-pyrite vein assayed 0.018 oz/ton Au, and a grab sample taken from the vicinity contained 275ppb Au. Anomalous to highly anomalous values for arsenic are associated with the gold mineralization; with a background of 5-10ppm arsenic, the samples from this vein ranged from 100ppm to >1000ppm.

The second mode of occurrence for gold mineralization is within felsic dykes. These orange-brown weathering, fine grained quartz-feldspar dykes yielded a trimmed range of 250-750ppb Au, with the highest value obtained being 2500ppb (White and Chabot, 1981). The dykes contain up to 5% visible pyrite, as well as elevated levels of arsenic and antimony. Chabot (1982) reports narrow arsenic halos around the dykes.

Mineralization within the limestone is generally limited to disseminated pyrite, though minor blebs of chalcopyrite were noted on TAH-18 (rock JER-014). On the TAH-19 claim, pods of nonauriferous massive pyrite were found within limestone cut by pyritic volcanic feeder dykes (rocks JER 084-093).

Alteration within the volcanic rocks was to carbonate, chlorite and epidote. A general low-grade regional metamorphism is probably responsible for the chlorite and epidote, but the source of the pervasive carbonate is likely the underlying Quatsino Limestone. Adjacent to plutons, hydrothermal alteration and localized silicification have been noted. The Parson's Bay formation has been altered to pyritic hornfels near intrusive bodies, while alteration in the Quatsino Limestone ranges from coarse, recrystallized calcite to marble and skarn. The skarn generally contains garnet, diopside, pyrite, pyrrhotite and minor chalcopyrite.

D. GEOCHEMISTRY

The objective of the 1983 program was to define the extent of high grade gold mineralization contained in quartz filled shears. To accomplish this, detailed rock chip sampling was performed. Each sample was analysed by assay for gold and silver, and analysed geochemically for arsenic. Panned rock concentrates and their coarse rejects were analysed the same way. Four samples of high grade quartz veining were also tested for tellurium and bismuth, and copper was selectively analysed.

Stream sediment and heavy mineral samples were geochemically tested for gold, silver and arsenic. All analyses were performed by Bondar-Clegg and Company Ltd., located at 130 Pemberton Avenue, North Vancouver, B.C.

1. Sampling Method

(a) Rock Chip

Continuous rock chip samples were removed by hammer and chisel from the faces of outcrops, and the chips were collected on a tarpaulin spread at the bottom of the rock face. Where the rock was too shattered to allow a continuous chip, a representative sample of fragments was taken. Sample intervals were primarily determined by lithology and degree of shearing or fracturing, and sample size was generally 0.5-1.0 kilograms.

Samples of quartz veins were as large as practicality would allow; when contained in shears, a 0.5-1.0 kilogram sample was easily obtainable, but when the veins cut competent rock, the sample may have weighed less than 0.25 kilograms. Large samples were packaged in heavy plastic sample bags, and small ones were placed in waterproof kraft sample envelopes.

(b) Panned Rock Concentrates

When rock that was suspected to be mineralized was sufficiently sheared or deteriorated to produce fine particles, the fine material was concentrated by panning. The rock particles were shoveled into a #6 mesh screen until sufficient -6 mesh fraction was obtained to completely fill a standard 38cm (15 inch) steel gold pan. The -6 mesh fraction was panned down to a volume of 75 to 150 millilitres and the +6 mesh fraction was retained for possible analysis. Both fractions were placed in heavy plastic sample bags.

(c) Heavy Mineral Samples

Heavy mineral samples were taken from the active part of the stream bed at locations where a decrease in stream velocity allowed for an accumulation of sediment (ie. pools, bars). A vertical section of sediments was shovelled into a #6 mesh screen until sufficient -6 mesh fraction was obtained to completely fill a standard steel gold pan. The -6 mesh fraction was panned down to a volume of approximately 75 millilitres. The concentrate was placed in heavy plastic sample bags.

(d) Stream Sediments

Stream sediment samples were taken where the energy level of the stream allowed for accumulation of relatively fine material. These samples were placed in standard waterproof kraft envelopes.

2. Laboratory Methods

(a) Preparation

All rock chip samples and the +6 mesh fraction of the panned rock concentrates were crushed to pea-sized fragments (about 0.5cm), then a 0.23 kilogram (0.5 lb.) split was pulverized to obtain a -100 mesh size fraction which was used for the analyses. All heavy mineral samples and the panned rock concentrates were pulverized to the -100 mesh size fraction. Stream sediment samples were dried then seived to obtain a -80 mesh size fraction.

(b) Determination

Analyses performed by assay were conducted as follows:

Element	Extraction	Method	Results	Detection limit
Au			oz/ton	0.002 oz/ton (6.8ppb)
Ag			oz/ton	0.02 oz.ton (0.68ppm)
Cu			%	0.01% (100ppm)

Analyses performed geochemically were conducted as follows:

Element	Extraction	Method	Results	Dections limit
Au	Aqua Regia	Fire Assay A.A.	PPB	5 ppb
Ag	Hot HNO_3	Atomic Absorption	PPM	0.2 ppm
Cu	Hot HNO_3	Atomic Absorption	PPM	1 ppm
As	Nitric Perchloric	Colourmetric	PPM	2 ppm
Te	Hbr-Br_2-MIBK	Atomic Absorption	PPM	0.2 ppm
Be	HNO_3	Atomic Absorption	PPM	1 ppm

3. Results and Discussion

(a) Rock Chips and Panned Rock Concentrates

The rock chip sampling program confirmed the presence of high-grade gold in quartz veins, and identified what have been interpreted as conduit shears for hydrothermal fluids. Plate 2 shows the locations and analytical results for the rock chip samples. Detailed sketches of the rock chip sampling are contained in Appendix E. Appendix D contains the descriptions of each sample.

As metioned previously, the two locations of highest grade quartz vein mineralization occur on the Old Vivan property and near the lower quarry on the TAH-18 claim (see Property Mineralization). A low grade version of this type of mineralization can be found in the middle quarry further uphill along the same road. There, a 10-20 centimetre quartz vein grades 0.205 oz/ton Au with 0.12 oz/ton Ag (KR-044). The vein occurs within a 30 centimetre shear with only slightly elevated gold, but a high amount of arsenic (KR-045: 0.043 oz/ton Au, >1000ppm As). This vein and the high grade vein near the lower quarry line up along a strike of 320° to 330° (see Plate 1, Geology). This system parallels that of the Old Vivian property. If this does represent a fault off-set of the same system, then the projected strike length of this vein would be on the order of 650 metres with about a 250 metre difference in elevation.

Of the numerous shear zones on the property, three are interpreted to have been conduits for hydrothermal fluids. The presence of elevated arsenic values or massive replacement pyrite are considered to be evidence for this. One conduit can be seen in the upper quarry on the TAH-15 claim. There, the 0.2-1.0 metre shears are filled with fine grained pyrite. Pyrite occurs in the adjacent wallrock for up to 0.3 metres on either side of the shear. Minor pyrite replacement features can be seen along the road cut to the north and east of the quarry, and again in the creek just to the east.

The second such occurrence can be found about 200 metres from the north end of the middle logging road on TAH-15, near the claim's west boundary. Nine samples were taken of which five had high arsenic values. Two of these samples also contained elevated gold values. The third conduit shear occurs in the lower quarry on TAH-18. This shear zone contains a minor quartz vein carrying only a trace of gold. Four of the 9 samples taken from this shear zone had arsenic values of >1000ppm.

The panned rock concentrates proved useful in determining both the presence gold, and the nature of the high grade mineralization. As mentioned, the presence of electrum was determined by this method. Generally speaking, concentrates yielded higher gold content than did either the rock samples or the +6 mesh fraction. At the upper quarry, TAH-15, one panned concentrate yielded a trace of gold while all rock samples assayed below detection limit.

(b) Heavy Mineral and Stream Sediment Samples

Interpretation of the type of heavy mineral sampling used on the property is tentative due to the low number of samples taken which prohibits the establishment of background values, and by the "Nugget Effect" of gold. A qualitative interpretation has been applied where repeatability of the anomaly is stressed.

Heavy mineral samples show that the north branch of the Tsowwin River is definitely anomalous in gold. Two samples taken near its confluence with the east branch yielded 4010ppb Au and 395ppb Au (Samples SSP-08 and 15415 respectively). Further up the north branch, all heavy mineral samples taken to the west of TAH-15 contained gold and arsenic, of which two samples (SSP-01 and SSP-02) were quite strongly anomalous in gold. Stream sediment samples taken at these sites showed a very low response.

One south flowing tributary of the east branch of the Tsowwin River yielded 230ppb Au with 100ppm As. This stream flows through the area of the Vivian workings. Further upstream along the east branch, sample SSP-09 also taken from a south flowing tributary, had slightly elavated gold and arsenic values.

E. CONCLUSIONS AND RECOMMENDATIONS

The TAH property and vicinity is considered to have excellent potential for economic gold mineralization, especially in view of the amount of significant mineralization found in the extremely limited exposure. However, the detailed examination that is required to fully evaluate the area would be difficult due to poor exposure. Fortunately, on-going logging operations will do much to alleviate this problem.

The exploration approach that should be employed would concentrate on detailed work within small areas. A program of detailed prospecting and geological mapping, preferably on a cut grid should be performed to establish the pattern of felsic dyking and shearing. Dependent on the results of such a program, trenching would be required, and consideration should be given to a reconnaissance EM survey to test its effectiveness in outlining extensions of shear zones.

In conjunction with the property work, detailed prospecting and reconnaissance mapping should be conducted on and off the property, concentrating on the dioritic stocks from Santiago Mountain east to Head Bay. The type of heavy mineral sampling employed during the 1983 program may prove to be effective in following up stream anomalies at lower elevations. If the results of this type of approach are initially encouraging, the program could be expanded to cover other areas, such as the hitherto unexplained heavy mineral anomaly on Weymer Creek draining the northeast flank of Tahsis Mountain.

Finally, consideration should be given to an ongoing project of research into new exploration work and geological mapping in the area, as well as for an annual reconnaissance of new logging roads.

BIBLIOGRAPHY

British Columbia Department of Mines and Petroleum Resources

Geology, Exploration and Mining in British Columbia; MINDEP

Chabot, G.E., 1982: Report #8-82 Internal Company Report TAH Claims

Chabot and White, 1981: Report #13-81 Internal Company Report TAH Claims

Hoadley, J.W., 1953: Geology and Mineral Deposits of Zeballos-Nimpkish Area, Vancouver Island, B.C.; GSC Memoir 272, p82.

Muller, J.E., 1977: Evolution of the Pacific Margin, Vancouver Island and Adjacent Regions; Canadian Journal Earth Sciences, Vol. 14, No. 9 pp2058-2062.

Muller, J.E., Northcote, K.E., and Carlisle, D., 1974: Geology and Mineral Deposits of Alert Bay-Cape Scott Map-Area, Vancouver Island, B.C. GSC Paper 74-8, p77.

Muller J.E., Cameron B.E.B., Northcote K.E., 1981: Geology and Mineral Deposits of Nootka Sound Map-Area, Vancouver Island, B.C. GSC Paper 80-16, p53.

Stevenson, J.S., 1950: Geology and Mineral Deposits of the Zeballos Mining Camp, British Columbia. BCDM Bulletin #27, p145.

APPENDIX A

EXHIBIT "A"

STATEMENT OF EXPENDITURES

EXHIBIT A
SUMMARY OF EXPENDITURES

TAH GROUP
(TAH 15, 18 and 19 Claims)

WAGES	$7,670.00
ACCOMMODATION	740.36
FOOD	1,032.74
TRUCK RENTAL	978.72
FUEL	240.15
FIELD EQUIPMENT	53.48
BUSINESS EXPENSE	401.19
FERRY	16.95
REPORT COST	2,800.00
ANALYSES, GEOCHEMICAL AND ASSAY	4,348.70
TOTAL EXPENDITURE	$18,282.29

PAC Account Transferral Request 3,717.71*
*20.34% of Total Expenditure

TOTAL ASSESSMENT	$22,000.00

TAH Group

TAH 15: 20 units @ $200.00/year for 2 years =	8,000.00
TAH 18: 15 units @ $200.00/year for 2 years =	6,000.00
TAH 19: 20 units @ $200.00/year for 2 years =	8,000.00
	$22,000.00

EXHIBIT A
STATEMENT OF EXPENDITURES

TAH GROUP
Consisting of the TAH 15, 18 and 19 Claims
Alberni Mining Division, NTS 92E/15E

WAGES

B. W. Smee, Exploration Supervisor			
Field Work - September 9-11	3 days @ $300.00/day	$ 900.00	
Analyses Interpretation	1 day @ $300.00/day	300.00	$1,200.00
G. F. McArthur, Senior Geologist			
Travel - September 27	1 day @ $225.00/day	$ 225.00	
Field Work - September 28-30	3 days @ $225.00/day	675.00	900.00
J. E. Robinson, Geologist			
Preliminary Work - September 6	1 day @ $125.00/day	$ 125.00	
Travel - September 8, 19, 27	3 days @ $125.00/day	375.00	
Field Work - September 9-18	10 days @ $125.00/day	1,250.00	
September 28-30	3 days @ $125.00/day	375.00	
Report Writing	17 days @ $125.00/day	2,125.00	4,250.00
K. L. Reading, Prospector			
Travel - September 8, 18, 19	3 days @ $110.00/day	$ 330.00	
Field Work - September 9-17	9 days @ $110.00/day	990.00	1,320.00
TOTAL WAGES			$7,670.00

ACCOMMODATION			740.36
FOOD			1,032.74
TRUCK RENTAL	12 days @ $31.56/day (K.L. Reading)		378.72
	3 days @ $30.00/day (B.W. Smee)		90.00
	17 days @ $30.00/day (J.E. Robinson)		510.00
FUEL			240.15
FIELD EQUIPMENT			53.48
BUSINESS EXPENSE			401.19
FERRY			16.95
REPORT COST	- Typing, Binding	$ 150.00	
	- Cipias, Blackline, photocopying	400.00	
	- Drafting - 15 days @ $150/day	2,250.00	2,800.00
			$6,263.59
			$13,933.59

EXHIBIT A
STATEMENT OF EXPENDITURES

TAH GROUP
Sample Assay and Geochemistry

178 Rock Analyses* @ $16.75/sample $2,981.50

Au + Ag + As + Prep.: 3.50 + 7.00 + 3.50 + 3.00 = $16.75/sample

24 Rock Analyses* @ $21.75/sample 522.00

Au + Ag + As + Prep.: 3.50 + 7.00 + 5.00 + 3.00 = $21.75/sample

4 Rock Analyses* @ $24.75/sample 99.00

Au + Ag + As + Be + Te + Te + Prep.: 3.00 + 7.00 + 3.25 + 2.75 + 5.25 + 3.00 = $24.75/sample

4 Rock Geochemistry @ $12.90/sample 51.60

Au + Ag + As + Prep.: 6.00 + 1.90 + 3.25 + 1.75 = $12.90/sample

1 Rock Geochemistry @ $14.80/sample 14.80

Au + Ag + As + Cu + Zn + Prep.: 6.00 + 1.90 + 3.25 + 0.95 + 0.95 + 1.75 = $14.80/sample

7 Steam Sediment Geochemistry @ $12.15/sample 85.05

Au + Ag + As + Prep. + Sample Retention: 6.00 + 1.90 + 3.25 + 0.75 + 0.25 = $12.15/sample

8 Heavy Mineral Concentrate Analyses* @ $18.50/sample 148.00

Au + Ag + As + Prep.: 3.50 + 7.00 + 3.25 + 4.75 = $18.50/sample

* Analysis: Au + Ag ± Cu are Assay
As ± Te ∓ Bi are Geochemistry

12	Heavy Mineral Concentrate Geochemistry @ $12.90/sample		$154.80
	Au 6.00 + Ag 1.90 + As 3.25 + Prep. 1.75 = $12.90/sample		
1	Heavy Mineral Concentrate Geochemistry @ $9.65/sample		9.65
	Au 6.00 + Ag 1.90 + Prep. 1.75 = $9.65/sample		
8	Heavy Mineral Concentrate Assay @ $13.50/sample		108.00
	Au 3.50 + Ag 7.00 + Prep. 3.00 = $13.50/sample		
6	+6 Mesh Concentrate Reject Assay @ $13.50/sample		81.00
	Au 3.50 + Ag 7.00 + Prep. 3.00 = $13.50/sample		
			$4,255.40
4	Data Set Charge @ $2.50	$10.00	
238	Single Datum Transmission @ 0.10/datum	23.80	
238	Multiple Data Transmission @ 0.25/data	59.50	93.90
			$4,348.70

APPENDIX B

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, John E. Robinson of Calgary, Alberta, hereby certify that:

1) I am a graduate of Syracuse University (1981) with a B.Sc. degree in Geology.

2) I have been actively and continuously engaged in the practice of mineral exploration for at least 2 years.

3) I am presently employed by Ishtar Exploration Ltd. of 72 Wellington St. W., Markham, Ontario as a consultant geologist.

4) I performed the work described in this report for Aberford Resources Ltd. of 300 - 5 Avenue S.W., Calgary, Alberta.

5) I performed the work describe herein under the supervision of Barry W. Smee, Exploration Supervisor, Aberford Resources Ltd.

John E. Robinson,
Consultant Geologist

STATEMENT OF QUALIFICATIONS

I, Barry W. Smee of Calgary, Alberta, hereby certify that:

1) I am a graduate of the University of Alberta, and the University of New Brunswick with a B.Sc. and Ph.D. in Geology, respectively.

2) I have practised continuously as a geologist since May, 1969.

3) I am employed by Aberford Resources Ltd. of 300 - 5 Avenue, S.W., Calgary, Alberta.

4) I am a member of the Association of Exploration Geochemists.

5) I am registered as a Professional Geologist in the Province of Alberta.

Barry W. Smee, Ph.D., P.Geol.
Exploration Supervisor

APPENDIX C

GEOCHEMICAL RESULTS

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geo
Lal

REPORT: 123-3222

FROM: ABERFORD RESOURCES LTD. SUBMITTED BY: J. ROBINSON
DATE: 18-OCT-83 PROJECT: TAH

ORDER	ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE
01	Ag	.2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-200	OTHER	CRUSH,PULVERI
02	As	2 PPM	NITRIC PERCHLOR DIG	Colourimetric	-200		RETENTION OF
03	Au	5 PPB	AQUA REGIA	Fire Assay AA	-200		PULVERIZING
							DRY, SEIVE -8
							RETENTION OF

REPORT COPIES TO: MR. BARRY SMEE INVOICE TO: MR. BARRY SMEE
MR. TOM RICHARDS
MR. JOHN ROBINSON

REMARKS: SHIPMENT TAH #2

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130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geo
La

REPORT: 123-3222

PROJECT: TAH PAGE

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	As PPM	Au PPB	NOTES
T SS-03-1		0.2	20	5	
R GFM-001		<0.2	400	45	
R GFM-002		<0.2	28	20	
R GFM-003		<0.2	20	10	
R GFM-012		0.4	150	275	
H SSP-03-1		<0.2	4	5	
H SSP-03-2		<0.2	7	<5	
H SSP-03-3		<0.2	5	5	

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Geo
Lal

REPORT: 123-3418

PROJECT: TAH-P

PAGE

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB	NOTES
C 15415		0.8	395	

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North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

C
of

REPORT: 423-3418

FROM: ABERFORD RESOURCES LTD. SUBMITTED BY: K L READING
DATE: 07-NOV-83 PROJECT: TAH-P

ORDER	ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPL
ONS							
01	Au	.002 OPT			-100	OTHER	ASSAY PREP
~~02~~	~~Au~~	~~.1 OPT~~					
03	As	.02 OPT					

REPORT COPIES TO: MR. BARRY SMEE INVOICE TO: MR. BARRY SMEE
MR. K. L. READING

Registered Assayer, Province of Brit

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Ce
of

REPORT: 423-3418

PROJECT: TAH-P

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	Ag OPT	NOTES
C 15401		0.036		0.30	
C 15402		0.005		0.04	
C 15403		0.152		0.20	
C 15404		0.153		0.20	
C 15405		0.031		0.02	
C 15406			177.7	104.80	
R 15407		0.021		0.16	
R 15408		0.347		0.27	
R 15409		0.060		0.16	
R 15410		0.076		0.17	
R 15411		0.016		0.04	
R 15412		0.269		1.61	
R 15413		0.010		0.02	
R 15414		0.050		0.02	

Registered Assayer, Province of Brit

Bondar-Clegg & Company Ltd.
130 Pemberton Ave,
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

REPORT: 423-2812

PROJECT: TAH PAGE

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	As OPT	Cu PCT	NOTES
R BWS-100		0.064		0.09		
R BWS-101		0.050		0.06		
R BWS-102		0.041		0.10		
R BWS-103		<0.002		0.08		
R JER-001		0.018		0.02	<0.01	
R JER-002		0.165		0.06	0.04	
R JER-003		0.073		0.08	0.04	
R JER-004		1.325		0.59	0.12	
R JER-005		0.036		0.11	0.07	
R JER-006		0.004		0.04	<0.01	
R JER-007		0.002		0.08		
R JER-008		<0.002		0.14		
R JER-009		0.183		0.34		
R JER-010		0.112		0.09		
R JER-011		<0.002		0.03		
R JER-012		<0.002		<0.02		
R JER-013		<0.002		<0.02		
R JER-014		<0.002		<0.02	0.03	
R JER-015		<0.002		<0.02		
R JER-016		<0.002		<0.02		
R JER-017		<0.002		<0.02		
R JER-018		<0.002		<0.02		
R JER-019		<0.002		<0.02		
R JER-020		<0.002		<0.02		
R JER-021		<0.002		<0.02		
R JER-022		<0.002		<0.02		
R JER-023		<0.002		<0.02		
R JER-024		<0.002		<0.02		
R JER-025		<0.002		<0.02		
R JER-026		<0.002		<0.02		
R JER-027		<0.002		<0.02		
R JER-028		0.002		0.02		
R JER-029		<0.002		<0.02		
R JER-030		<0.002		<0.02		
R JER-031		0.072		0.04		
R JER-032		<0.002		<0.02		
R JER-033		<0.002		0.02		
R JER-034		<0.002		0.04		
R JER-035		0.015		0.03		
R JER-036		0.020		0.02		

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	As OPT	P
R JER-038		0.005		0.07	
R JER-039		<0.002		0.05	
R JER-040		0.009		0.02	
R JER-041		0.012		0.02	
R JER-042		0.003		0.02	
R JER-043		<0.002		0.03	
R JER-044		<0.002		0.02	
R JER-045		<0.002		0.02	
R JER-046		<0.002		0.03	
R JER-047		<0.002		<0.02	
R JER-048		0.005		0.02	
R JER-049		0.002		0.03	
R JER-050		0.005		0.04	
R JER-051		0.022		0.03	
R JER-052		<0.002		0.02	
R JER-053		<0.002		<0.02	
R JER-054		<0.002		<0.02	
R JER-055		<0.002		0.02	
R JER-056		<0.002		0.04	
R JER-057		<0.002		0.03	
R JER-058		<0.002		0.02	
R JER-059		<0.002		0.04	
R JER-060		<0.002		0.02	
R JER-061		<0.002		<0.02	
R JER-062		<0.002		<0.02	
R JER-063		<0.002		<0.02	
R JER-064		<0.002		0.03	
R JER-065		<0.002		0.02	
R JER-066		<0.002		<0.02	
R JER-067		<0.002		0.02	
R JER-068		<0.002		0.02	
R JER-069		<0.002		<0.02	
R JER-070		<0.002		0.02	
R JER-071		0.225		0.10	0.01
R JER-072		0.002		0.11	
R JER-073		<0.002		0.04	
R JER-074		<0.002		0.02	
R JER-075		<0.002		<0.02	
R JER-076		<0.002		0.02	
R JER-077		<0.002		<0.02	

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PROJECT: TAH PAGE

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	Ag OPT	Cu PCT	NOTES
R JER-078		<0.002		<0.02	<0.01	
R JER-079		<0.002		<0.02		
R JER-080		<0.002		<0.02		
R JER-081		<0.002		0.02		
R JER-082		<0.002		<0.02	0.02	
R JER-083		<0.002		0.02		
R JER-084		<0.002		0.08		
R JER-085		<0.002		0.02		
R JER-086		<0.002		0.02		
R JER-087		<0.002		<0.02		
R JER-088		<0.002		<0.02		
R JER-089		<0.002		0.04		
R JER-090		<0.002		<0.02		
R JER-091		<0.002		<0.02		
R JER-092		<0.002		0.04		
R JER-093		<0.002		0.02		
R JER-094		<0.002		0.04		
R JER-095		<0.002		0.02		
R JER-096		<0.002		0.03		
R JER-097		0.002		0.02		
R JER-098		<0.002		0.02		
R JER-099		<0.002		0.02		
R JER-100		<0.002		<0.02		
R JER-101		<0.002		<0.02		
R JER-102		<0.002		<0.02		
R JER-103		<0.002		<0.02		
R JER-104		<0.002		<0.02		
R JER-105		<0.002		<0.02		
R JER-106		<0.002		<0.02		
R JER-107		<0.002		<0.02		
R JER-108		<0.002		0.02		
R JER-109		3.150		13.25		
R JER-110		3.924		7.81		
R JER-111		0.016		0.02		
R JER-112		0.003		0.03		
R JER-113		<0.002		0.04		
R JER-114		<0.002		0.03		
R JER-115		<0.002		<0.02		
R JER-116		0.002		0.04		
R JER-117		<0.002		0.02		

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	Ag OPT	Cu PCT
R KR-01		6.520		1.27	0.96
R KR-02		0.034		0.09	0.21
R KR-03		8.228		1.73	2.04
R KR-04		0.476		0.11	0.17
R KR-05		0.010		0.09	
R KR-06		0.493		0.42	
R KR-07		0.460		0.34	
R KR-08		0.020		0.16	
R KR-09		0.076		0.08	
R KR-10		0.002		<0.02	
R KR-11		<0.002		<0.02	
R KR-12		<0.002		<0.02	
R KR-13		<0.002		<0.02	
R KR-14		<0.002		<0.02	
R KR-15		<0.002		<0.02	
R KR-16		<0.002		<0.02	
R KR-17		<0.002		<0.02	
R KR-18		<0.002		<0.02	
R KR-19		0.002		0.05	
R KR-20		0.002		0.02	
R KR-21		<0.002		<0.02	
R KR-22		0.002		<0.02	
R KR-23		<0.002		<0.02	
R KR-24		<0.002		<0.02	
R KR-25		<0.002		<0.02	
R KR-26		<0.002		<0.02	
R KR-27		0.002		<0.02	
R KR-28		0.002		<0.02	
R KR-29		<0.002		<0.02	
R KR-30		<0.002		<0.02	
R KR-31		<0.002		<0.02	
R KR-32		<0.002		<0.02	
R KR-33		0.024		0.02	
R KR-34		<0.002		<0.02	
R KR-35		<0.002		<0.02	
R KR-36		<0.002		<0.02	
R KR-37		<0.002		<0.02	
R KR-38		<0.002		<0.02	
R KR-39		0.055		0.03	
R KR-40		0.006		0.02	

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	As OPT	Cu PCT	NOTES
R KR-41		<0.002		<0.02	<0.01	
R KR-42		0.061		0.04		
R KR-43		<0.002		<0.02		
R KR-44		0.205		0.12		
R KR-45		0.043		0.03		
R KR-46		0.006		0.02		
R KR-47		<0.002		<0.02		
R KR-48		0.003		<0.02		
R KR-49		0.002		<0.02		
R KR-50		0.040		0.02		
R KR-51		0.046		0.16		
R KR-51A		0.044		0.07		
R KR-52A		2.470		1.46		
R KR-52B		2.011		1.23		
R KR-53A		0.526		0.26		
R KR-53B		0.315		0.21		
R KR-54		0.175		7.39		
R KR-55		0.021		0.24		
R KR-56		0.020		0.07		
R KR-57		0.002		0.08		
R KR-58		0.003		0.11		
R KR-59		0.029		0.09		
R KR-60		0.007		0.03		
R KR-61		0.018		0.08		
R KR-62		0.009		0.08		
R KR-63		<0.002		<0.02		
R KR-65		0.019		0.02		
R KR-66		3.767		0.90	0.22	
R OP-01		0.052		0.08	0.04	
R OP-02		0.004		0.07	0.12	
R OP-03		0.002		0.04	<0.01	
R OP-04		0.002		<0.02	<0.01	
R OP-05		0.002		<0.02	<0.01	
R OP-06		<0.002		<0.02		
R OP-07		<0.002		<0.02		
R OP-08		<0.002		<0.02		
R OP-09		<0.002		<0.02		
R OP-10		<0.002		<0.02		
R OP-11		<0.002		<0.02		
R OP-12		<0.002		<0.02		

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au OPT	As OPT	C[illegible] P[illegible]
R OP-13		<0.002		<0.02	
R OP-14		0.006		<0.02	
R OP-15		<0.002		<0.02	
R OP-16		<0.002		<0.02	<0.0
R OP-17		0.003		0.02	
R OP-18		<0.002		<0.02	
R OP-19		<0.002		0.03	
R OP-20		<0.002		<0.02	
R OP-21A		<0.002		<0.02	0.0
R OP-21B		<0.002		<0.02	<0.0
R OP-22		<0.002		<0.02	
H P-1		<0.002		<0.02	
H P-2		0.014		0.02	
H P-3		1.827		1.41	
H P-4		0.283		0.19	
H P-5			30.3	18.10	
H P-6		0.359		0.20	
H P-7		0.057		0.08	
H P-8		5.184		0.99	

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REPORT: 123-2812

FROM: ABERFORD RESOURCES LTD.
SUBMITTED BY: J-ROBINSON
DATE: 28-SEP-83 PROJECT: TAN

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREP
Cu	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100	OTHER	AS RECEIVED
Zn	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100		DRY, SEIVE -
Ag	.2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100		RETENTION O
As	2 PPM	NITRIC PERCHLOR DIG	Colourimetric	-100		PULVERIZING
Bi	1 PPM	HNO3	Atomic Absorption	-100		
Te	.2 PPM	HBr-Br2-MIBK	Atomic Absorption	-100		
Au	5 PPB	AQUA REGIA	Fire Assay AA	-100		

REPORT COPIES TO: MR. BARRY SMEE
MR. TOM RICHMOND
MR. JOHN ROBINSON

INVOICE TO: MR. TOM RICHMOND

REMARKS: SHIPMENT #1
TWO SPLITS WERE TAKEN OF ROCKS KR-52 AND KR-53
BY BONDAR CLEGG AND ARE LABELED A AND B.

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211 Rocks = 209 + 2 Duplicates

REPORT: 123-2812 PROJECT: TAH

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	As PPM	As PPM	Bi PPM	Te PPM	Au PPB
T SS-1				<0.2	60			15
T SS-2				<0.2	43			10
T SS-3				<0.2	100			5
T SS-4				<0.2	30			<5
T SS-5				<0.2	105			10
T SS-6				<0.2	40			<5
T SS-7				<0.2	57			5
R BWS-100					103			
R BWS-101					105			
R BWS-102					100			
R BWS-103					20			
R JER-001					7			
R JER-002					375			
R JER-003					200			
R JER-004					180			
R JER-005					125			
R JER-006					12			
R JER-007					500			
R JER-008					850			
R JER-009					> 1000			
R JER-010					> 1000			
R JER-011					500			
R JER-012					100			
R JER-013					23			
R JER-014					28			
R JER-015					18			
R JER-016					6			
R JER-017					5			
R JER-018					10			
R JER-019					5			
R JER-020					5			
R JER-021					16			
R JER-022					27			
R JER-023					13			
R JER-024					3			
R JER-025					20			
R JER-026					8			
R JER-027					<2			
R JER-028					> 1000			
R JER-029					60			

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	As PPM	As PPM	Bi PPM	Te PPM	Au PPB
R JER-030					750			
R JER-031					> 1000			
R JER-032					100			
R JER-033					105			
R JER-034					500			
R JER-035					> 1000			
R JER-036					100			
R JER-038					> 1000			
R JER-039					175			
R JER-040					550			
R JER-041					> 1000			
R JER-042					27			
R JER-043					80			
R JER-044					40			
R JER-045					38			
R JER-046					3			
R JER-047					4			
R JER-048					> 1000			
R JER-049					87			
R JER-050					400			
R JER-051					400			
R JER-052					100			
R JER-053					22			
R JER-054					7			
R JER-055					5			
R JER-056					18			
R JER-057					7			
R JER-058					20			
R JER-059					20			
R JER-060					95			
R JER-061					65			
R JER-062					3			
R JER-063					40			
R JER-064					21			
R JER-065					<2			
R JER-066					11			
R JER-067					10			
R JER-068					30			
R JER-069					8			
R JER-070					2			

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Bi PPM	Te PPM	Au PPB
R JER-071					230			
R JER-072					4			
R JER-073					5			
R JER-074					4			
R JER-075					3			
R JER-076					8			
R JER-077					17			
R JER-078					<2			
R JER-079					7			
R JER-080					11			
R JER-081					20			
R JER-082					10			
R JER-083					9			
R JER-084					11			
R JER-085					11			
R JER-086					48			
R JER-087					14			
R JER-088					5			
R JER-089					<2			
R JER-090					<2			
R JER-091					8			
R JER-092					11			
R JER-093					10			
R JER-094					6			
R JER-095					<2			
R JER-096					<2			
R JER-097					16			
R JER-098					5			
R JER-099					8			
R JER-100					<2			
R JER-101					<2			
R JER-102					<2			
R JER-103					26			
R JER-104					22			
R JER-105					22			
R JER-106					63			
R JER-107					7			
R JER-108					<2			
R JER-109					> 1000			
R JER-110					> 1000			

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REPORT: 123-2812 PROJECT: TAH

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Bi PPM	Te PPM	Au PPB
R JER-111					135			
R JER-112					60			
R JER-113					15			
R JER-114					4			
R JER-115					31			
R JER-116					11			
R JER-117					<2			
R KR-01					78			
R KR-02					14			
R KR-03					50			
R KR-04					33			
R KR-05					55			
R KR-06					> 1000			
R KR-07					> 1000			
R KR-08					> 1000			
R KR-09					> 1000			
R KR-10					63			
R KR-11					43			
R KR-12					48			
R KR-13					100			
R KR-14					45			
R KR-15					38			
R KR-16					110			
R KR-17					50			
R KR-18					110			
R KR-19					120			
R KR-20					60			
R KR-21					28			
R KR-22					150			
R KR-23					80			
R KR-24					220			
R KR-25					60			
R KR-26					52			
R KR-27					14			
R KR-28					40			
R KR-29					18			
R KR-30					120			
R KR-31					200			
R KR-32					42			
R KR-33					> 1000			

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Bi PPM	Te PPM	Au PPB	N
R KR-34					290				
R KR-35					82				
R KR-36					150				
R KR-37					9				
R KR-38					6				
R KR-39					> 1000				
R KR-40					> 1000				
R KR-41					83				
R KR-42					> 1000				
R KR-43					40				
R KR-44					> 1000				
R KR-45					> 1000				
R KR-46					> 1000				
R KR-47					950				
R KR-48					600				
R KR-49					310				
R KR-50					950				
R KR-51					800				
R KR-51A					> 1000				
R KR-52A					> 1000	<1	0.2		
R KR-52B					> 1000	<1	0.2		
R KR-53A					> 1000	<1	<0.2		
R KR-53B					> 1000	1	<0.2		
R KR-54					> 1000				
R KR-55					> 1000				
R KR-56					800				
R KR-57					240				
R KR-58					600				
R KR-59					> 1000				
R KR-60					> 1000				
R KR-61					> 1000				
R KR-62					> 1000				
R KR-63					40				
R KR-65					> 1000				
R KR-66					125				
R KR-67		40	38	0.3	75			1180	
R OP-01					<2				
R OP-02					80				
R OP-03					330				
R OP-04					50				

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Bi PPM	Te PPM	Au PPB
R OP-05					12			
R OP-06					6			
R OP-07					12			
R OP-08					6			
R OP-09					3			
R OP-10					3			
R OP-12					15			
R OP-13					15			
R OP-14					> 1000			
R OP-15					150			
R OP-16					450			
R OP-17					50			
R OP-18					18			
R OP-19					210			
R OP-20					750			
R OP-21A					55			
R OP-21B					20			
R OP-22					8			
H P-1					280			
H P-2					330			
H P-3					> 1000			
H P-4					> 1000			
H P-5					> 1000			
H P-6					> 1000			
H P-7					> 1000			
H P-8					2			
H SSP-01				0.3	80			810
H SSP-02				<0.2	125			135
H SSP-03				<0.2	170			60
H SSP-04				<0.2	450			80
H SSP-05				0.2	77			60
H SSP-06				<0.2	78			45
H SSP-07				<0.2	150			70
H SSP-08				0.4	115			4010
H SSP-09				0.4	100			60
H SSP-10				<0.2	27			10
H SSP-11				<0.2	30			40
H SSP-12				0.2	100			230

APPENDIX D

1983 ROCK SAMPLE DESCRIPTIONS

ROCK SAMPLE DESCRIPTIONS

Sample	Location	Description
BWS Series - refer to Figure iii, Appendix E		
0100	19.5m along vein, TAH 19-22	4cm quartz + pyrite portion of vein.
0101	19.5m along vein, TAH 19-22	10cm pyrite + quartz portion of vein contiguous with 0100.
0102	19.5m along vein, TAH 19-22	6cm pyrite + diorite inclusion contiguous with 0101.
0103	19.5m along vein, TAH 19-22	2cm quartz + pyrite portion of vein contiguous with 0102.
	22cm vein lost at surface of overburden.	
JER Series - refer to Figure iii, Appendix E		
001	5m along vein, TAH 19-22	30cm chip across diorite adjacent to vein.
002	5m along vein, TAH 19-22	30cm chip across upper half of vein: quartz > pyrite. Contiguous with 001.
003	5m along vein, TAH 19-22	30cm chip across lower half of vein: quartz < pyrite. Contiguous with 002.
	Vein lost at surface of overburden	
004	16m along vein, TAH 19-22	15cm chip across 20cm long pod of massive pyrite.
005	16m along vein, TAH 19-22	5cm chip across mafic inclusion in vein. contiguous with 004.
	Vein width 20cm, this location	
006		Grab sample of magnetite-pyrite-epidote alteration (skarn) in diorite.
	Refer to Figure i, Appendix E	
007	Vivian at Tsowwin River	20cm orange-brown gouge filled shear in green andesitic tuff - variably magnetic and calcareous. Minor disseminated pyrite.

Sample	Location	Description
008	Vivian at Tsowwin River	Shattered andesitic tuff immediately west of eastern shear.
009	Vivian at Tsowwin River	Quartz-carbonate veining within 20cm shear in east side of adit. Sheeted vein 5-15mm. Rock to west is shattered to 5-10cm^3 fragments. Rock to east is competent.
010	Vivian at Tsowwin River	Gouge from same shear as 009 from roof of adit.
011	Vivian at Tsowwin River	Competent andesitic tuff of eastern wall rock.
012	Vivian at Tsowwin River	Shattered tuff from west wall of adit.
013	Road about 320° from Vivian	Orange weathered, vuggy, white to translucent material adjacent to shear in limestone.
014	Road about 320° from Vivian	Brown weathering, recrystalized limestone with calcite filling secondary porosity. Minor chalcopyrite blebs.

Meterage for 015-022 measured from north end of Upper Quarry.

Sample	Location	Description
015	TAH 15, beyond Upper Quarry 262m	1cm quartz vein in shear. Wallrock of massive green plagioclase (?) crystal tuff, mildly calcareous and pyritic with cross cutting quartz +/- carbonate microveins.
016	TAH 15, beyond Upper Quarry 267m	2-5cm vuggy, cockscomb quartz vein (015/74S).
017	TAH 15, beyond Upper Quarry 267m	Above vein cross-cut by shear trending 310°/47N. Bleaching at junction.
018	TAH 15, beyond Upper Quarry about 202m	Shear in massive, medium to dark green plagioclase crystal tuff.
019	TAH 15, beyond Upper Quarry 109m	Orange to light green weathering, grey to mauve, fine grained quartz eye dyke with abundant pyrite. calcareous and siliceous.

Sample	Location	Description
020	TAH 15 beyond Upper Quarry 98m	Shear gouge from 270°/v trending contact between dark green to black dyke with a light green dyke.
021	TAH 15 beyond Upper Quarry 75m	Beginning of distinctive "speckled" andesitic crystal tuff containing about 15% broken bluish crystals. Contains 20-30% replacement pyrite.
022	TAH 15 beyond Upper Quarry 61.5m	Pyritic fracture in "speckled" tuff trending 310/68N. Contains 30-40% replacement pyrite and 10% angular, clear quartz fragments.
023	TAH 15, west side	Pyritic, calcareous, hornfelsed interbedded argillite and siltstone. Bedding 015/46W.
024	TAH 15, west side	Orange weathering, grey-green, calcareous pyritic felsic dyke, quartz-carbonate veining, 10% pyrite.
025	TAH 15, west side	Rusty, light grey, pyritic felsic dyke trending 320° cutting interbedded shales and limestone.
026	TAH 18, west side	Rusty, medium green, fine to medium grained dyke with 10% pyrite. Above KR 043.
027	TAH 18, west side	Very fine grained, grey-green, siliceous felsic dyke containing 10% pyrite. Cross-cuts massive, grey limestone.
028	TAH 18, Middle Quarry (Figure v, Appendix E)	Hornblende porphyry dyke: white and light green calcareous groundmass with 2-4mm hornblende crystals.
029	TAH 18, west side	Grey, rusty weathering, siliceous pyritic felsic dyke.
030	TAH 18, west side	5cm of rubble sheared, pyritic, grey felsic dyke. Shear trends 330/85E.
031	TAH 18, west side	5cm of gouge adjacent to 030.
032	TAH 18, west side	20cm chip across competent dyke adjacent to 030.

Sample	Location	Description
033	TAH 18, west side	25cm chip across competent dyke adjacent to 031.
034	TAH 18, west side	Same dyke, taken 2.4m @ 1.50° from 032.
035	TAH 18, west side	Same dyke, taken 4m @ 150° from 030.
036	TAH 18, west side	Baked contact of dark green mafic dyke with limestone producing a mild skarn.
038	TAH 18, Discovery Site (refer to Figure vi, Appendix E)	Gouge in shear beside vein (KR 052)
039	TAH 18, Discovery Site	1m chip across rubble between veins (KR 052 and 059).
040	TAH 18, along strike from Lower Pit	2cm vuggy quartz vein trending 330/85E, taken 1 metre up from road surface.
041	TAH 18, along strike from Lower Pit	6cm cockscomb quartz vein taken 2.1 metres up from road surface.
042	TAH 18, along strike from Lower Pit	Mildly calcareous and pyritic, very fine grained to granular, light to medium green andesitic flow (?). From footwall of vein 041.
043	TAH 18, along strike from Lower Pit	Same rock type as 042 from hanging wall of vein.
044	Lower Pit, Figure vii, Appendix E	Punky white, brown to rusty weathered, highly altered volcanic ?

Meterages for samples 045 - 069 are measured from bridge east along Tsowwin Main Line.

Sample	Location	Description
045	TAH 18, 130m	13cm sheared contact of diorite and mafic dyke.
046	TAH 18, 150m	10cm shear contact of diorite with mafic dyke containing 1-2cm cockscomb quartz veins.
047	TAH 18, 280m	0.5cm quartz stockwork-like veining in dark green, pyritic basalt.

Sample	Location	Description
048	TAH 18, 330m	Orange weathering, grey-green felsic dyke contianing pyrite and arsenopyrite.
049	TAH 18, 540m	1-3cm cockscomb quartz vein trending 035°/v.
050	TAH 18, 570m	10cm gouge from shear in mafic dyke.
	Samples 051-056 from roadside quarry	
051	TAH 18, 1198m	Gouge from 10-20cm shear trending 330/55E in andesitic tuff. Calcareous, pyritic.
052	TAH 18, 1198m	Rubbly rock from footwall of shear.
053	TAH 18, 1186m	203cm rusty weathering calcite vein.
054	TAH 18, 1181m	2-3cm calcite veining trending 045/85W in medium green aphanatic andesitic flow rock similar to that outcropping in Lower Quarry.
055	TAH 18, 1198m	Relatively competent hanging wall rock with calcite microveining.
056	TAH 18, 1525m	Light grey-green calcareous, pyritic felsic dyke.
	Samples 057-061 are grabs taken from 8 metre zone of dyking in limestone	
057	TAH 18, 1870m	Rusty limestone with 5% pyrite as fracture coatings.
058	TAH 18, 1872m	Pyritic felsic dyke.
059	TAH 18, 1874m	Fractured, pyritic limestone.
060	TAH 18, 1876m	Pyritic, felsic dyke.
061	TAH 18, 1878m	Fractured limestone with minor pyrite coatings.
	Samples 062-068 taken from intensely sheared outcrop approx. 2800 metres. (refer to Figure viii, Appendix E)	
062	TAH 18, 2800m	1-2cm cockscomb quartz veining.

Sample	Location	Description
063	TAH 18, 2800m	10cm shear gouge - no veins.
064	TAH 18, 2800m	15cm shear parallel to 063 but off-set by low angle shear containing quartz (062).
065	TAH 18, 2800m	1cm quartz vein cutting siliceous felsic dyke?
066, 067	TAH 18, 2800m	0.5m chips across gouge in rusty weathering, punky grey shear.
068	TAH 18, 2800m	1m chip across gouge similar to 066, 067.
069	TAH 18, 2815m	Grab sample of dark grey limestone cut by carbonate microveining.
070	TAH 19-22, refer to Figure iii, Appendix E	20cm chip across pyrite + quartz vein at the vein's first appearance. Vein lost at surface of overburden.
071	TAH 19-22, 100m east of 070	Fine grained, dark green dyke with minor magnetite and pyrite cutting diorite.
Samples 072-077 taken south of the southeast corner of TAH 19		
072		Highly pyritic, medium to coarse grained, siliceous diorite taken near edge of intrusive contact with Bonanza volcanics.
073		Sheared, pyritic contact between porphyry andesite and diorite.
074		Well fractured pyritic feldspar porphyry andesite taken 3m south of 073.
075		30cm chip across shear in andesite porphyry trending 050/70E.
076		Taken 7m south of 075: 50cm chip across junction of 2 shears (020/75W, 335/40S).
077		Punky grey, rusty shear with minor quartz veining.

Sample	Location	Description
	Samples 078-083 taken at contact of diorite and limestone, approx. 50m uphill along road from quartz vein in diorite, TAH 19	
078	TAH 19	Yellow weathered, light green, silicified epidote skarn. Contains knots of magnetite, and blebs of chalcopyrite.
079	TAH 19	2-3cm cockscomb quartz vein within shear trending 055%/v in skarn.
080	TAH 19	Light green fine grained dyke.
081	TAH 19	Skarn comprised mainly of yellow, very light weight, cubic crystals (hydrothermal alteration of pre-existing mineral) with magnetite and pyrite.
082	TAH 19	Skarn float similar to 078.
083	TAH 19	Rusty shear in limestone adjacent to skarn.
	Samples 084-093 taken from pods of massive pyrite associated with rusty weathering, light grey-green andesitic volcanics interbedded with limestone, TAH 19.	
084	TAH 19	3-4cm cockscomb quartz vein in massive pyrite.
085	TAH 19	Andesite with quartz-carbonate microveining. Contains 30-40% pyrite.
086	TAH 19	Rusty, rubbly andesite adjacent to 084.
087	TAH 19	Rusty, rubbly andesite 10 metres west of 084.
088	TAH 19	1-3cm quartz veining in sheared andesite adjacent to 087.
089	TAH 19	Pod of massive pyrite.
090	TAH 19	Shear gouge in andesite.
091	TAH 19	3cm quartz vein, abundant pyrite, with arsenopyrite. Trends 070°.

Sample	Location	Description
092	TAH 19	Sheared, pyritic, calcite porphyry andesite.
093	TAH 19	Similar shear adjacent to 092 with rare pyrite.
	Samples 094-098 taken in northeast corner of TAH 15	
094	TAH 15	Pyritic, hornfelsed interbedded silt and shale. Bedding 300°/36S.
095	TAH 15	Tuffaceous interbed in shale. Very fine grained, dark grey.
096	TAH 15	Felsite dyke cutting sediments. Light grey, calcareous. Up to 25% pyrite.
097	TAH 15	Calcite vein breccia in black limestone.
098	TAH 15	Felsic dyke as 096 located 30m @ 330° up cliff face from 096.
099	TAH 15	Highly pyritic calcareous dyke (?) located 50m @ 150° from 096.
	Above samples on upper part of slope at base of cliff.	
100	TAH 15	Clear to very smokey, pyritic quartz vein 2cm wide.
101	TAH 15	Very fine grained, light green hornblende (?) porphyry dyke cut by 100 vein.
102	TAH 15	1.25m chip sample across felsic dyke cutting the hornblende porphyry.
	Above 3 samples located about 100m down slope from cliff face.	
	Samples 103-108 taken from creek immediately east of upper quarry, TAH 15	
103	TAH 15	Yellow weathering, light grey, aphanatic felsic dyke.
104	TAH 15	Highly pyritic, altered "speckled" tuff approx. 140° from KR 029. Possible extension of pyritic zones in area of upper quarry.

Sample	Location	Description
105	TAH 15	Feature identical to 104, located 5m downstream.
106	TAH 15	Altered, slightly pyritic "speckled" tuff located 15 metres downstream from 105.
107	TAH 15	Similar feature, 5m downstream from 106.
108	TAH 15	Similar feature, 50% pyrite.
109	Vivian Ore Dump	Milky to clear, slightly vuggy quartz vein with minor pyrite, 203cm wide.
110	Vivian Ore Dump	<1cm sheeted quartz-carbonate veining with 10% pyrite.
111	Vivian Ore Dump	Hematitic limestone skarn gangue material.
112	TAH 18, east side	Sheared, altered, orange-brown weathering tuff with 30% pyrite.
113	TAH 18, east side	15m from 012 - similar rock with about 15% pyrite.
114	TAH 18, east side	3m chip across calcareous tuff containing 5% pyrite and calcite + pyrite veinlets.
115	TAH 18, east side	1m chip across argillite and siltstone interbed in limestone. About 100m north of 114.
116	TAH 18, east side	Shear in rusty weathering green tuff containing 20% pyrite. About 100m north of 115.
117	TAH 18, east side	Pyritic quartz eye porphyry dyke adjacent to 116.

KER Series - Samples 001-004: refer to Figure iii, Appendix E

001	TAH 19-22	Massive Pyrite.
002	TAH 19-22	Highly magnetic, epidotic diorite adjacent to quartz-sulphide vein.

Sample	Location	Description
003	TAH 19-22	Massive pyrite with quartz.
004	TAH 19-22	Highly magnetic diorite.

Samples 005-009 refer to Figure ii, Appendix F

Sample	Location	Description
005	Vivian Adit	Carbonate stringer in adit roof.
006 15404 (con) 15410 (+6)	Vivian Adit	Quartz veins in adit roof.
007 15403 (con) 15409 (+6)	Vivian Adit	Quartz vein in orange gouge.
008 15402 (con) 15408 (+6)	Vivian Adit	Black, spongy seam.
009 15401 (con) 15407 (+6)	Vivian Adit	Relatively competent, orange weathering tuff.

Meterages indicated for samples 010-019 are measured north from Upper Quarry, TAH 15.

Sample	Location	Description
010	TAH 15, 73m	75cm chip across plagioclase crystal tuff cut by 1cm replacement pyrite fracture.
011	TAH 15, 71.5m	1m chip contiguous with 010 across tuff containing up to 30% pyrite.
012	TAH 15, 32m	25cm chip across fracture zone in tuff containing 30-40% replacement pyrite.
013	TAH 15, 27m	50cm chip across pyritic fracture in unmineralized tuff: 320°/85E.
014	TAH 15, 24m	15cm calcareous, pyritic fracture: 300°/60N.
015	TAH 15, 19m	15cm pyritic fracture: 280°/65N.
016	TAH 15, 9m	1.25m chip across pyrite replaced fracture zone.

Sample	Location	Description
017	TAH 15, 12m	Crystal tuff with 20% disseminated pyrite.
018	TAH 15, 10m	1m chip sample across 30cm pyrite replaced fracture.
019	TAH 15, 16m	Highly weathered sulfide zone trending 330°/54N.

Samples 020-028 are from Upper Quarry refer to Figure iv, Appendix E

Sample	Location	Description
020	TAH 15	Sheared, pyrite replaced crystal tuff.
021	TAH 15	2-5cm vuggy quartz vein in above shear.
022	TAH 15	Pyrite replaced tuff from shear.
023, 024 025, 026	TAH 15	Quartz-carbonate microvein stockwork in crystal tuff.
027	TAH 15	Crystal tuff.
028	TAH 15	1.0m chip across 0.6m pyrite replacement zone.
029	19m @ 150° from 028	0.30m chip across pyritic shear.
030	TAH 15	Siliceous, calcareous, pyritic felsic dyke in north bank of creek.
031	TAH 15	Same dyke, south bank of creek.
032	TAH 15	Same dyke ? 5m to south.
033	TAH 15	13cm calcite + quartz + pyrite vein trending 320°/55E.
034, 036	TAH 15	Narrow, parallel veins.
035	TAH 15	35cm chip across tuff, north side of 033.
037, 038 039	TAH 15	Grabs of carbonate veining in tuff: medium green, pervasively calcareous with minor pyrite & pyrrhotite coatings.

Sample	Location	Description
040	TAH 15	Quartz-carbonate veining with pyrite + pyrrhotite.
041	TAH 15	Tuff with minor pyrite coatings, minor chalcopyrite.
042	TAH 15	Approx. 150m south of 033-041.
043	TAH 18	60cm chip across punky, white, pyritic shear zone trending 315/55N.
Samples 044-051A refer to Figure v, Appendix E		
044	TAH 18	20-30cm cockscomb quartz vein.
045	TAH 18	10-20cm of rusty gouge on either side of quartz.
046	TAH 18	Boudined dyke, 20-30cm wide, adjacent to shear.
047	TAH 18	0.5m chip across felsic porphyry dyke.
048	TAH 18	0.5m chip across hornblende porphyry dyke?
049	TAH 18	Porphyry dyke similar to 047.
050-051A	TAH 18	Minor, narrow quartz veins as indicated in Figure v.
Samples 052-054, 058-059 refer to Figure vi, Appendix E		
052	TAH 18	Extension of Discovery Vein (81-NAB 015). 2-3cm cockscomb quartz vein with minor pyrite, arsenopyrite and black, sooty material in 5-10cm shear.
053	TAH 18	Duplicate of Discovery Vein: 2-3cm cockscomb quartz vein.
054	TAH 18	Subparallel 1-2cm quartz vein.
058	TAH 18	2.0m chip across weathered, rubbly tuff between 053 and 054.
059		1-2cm quartz shear subsidiary to 052.

Sample	Location	Description
	Samples 055-057 located 20m east of above.	
055	TAH 18	Shear gouge (20-30cm) in andesitic flow ?
056	TAH 18	Hanging wall of shear: 10-20% pyrite in a very fine grained andesitic flow ?
057	TAH 18	Footwall of shear: <5% pyrite.
	Samples 060-063, refer to Figure vii, Appendix E	
060	TAH 18	Fine grained to aphanatic, light to medium green, mildly pyritic and calcareous andesite.
061	TAH 18	3-10cm vuggy quartz vein.
062	TAH 18	Aphanatic, medium green cryptically calcareous, mildly pyritic andesite.
063	TAH 18	7m chip across stockwork like micorveining in light green coloured andesitic volcanic.
066	TAH 19-22	Massive pyrite from location of KR 001-004.
OP Series		
OP-1	TAH 22	Magnetite skarn, brecciated, with minor chalcopyrite and malachite.
OP-2	TAH 22	Massive magnetite with chalcopyrite blebs, quartz veining.
OP-3	TAH 22	Fetid limestone block in magnetite with minor chalcopyrite.
OP-4	TAH 22	Massive pyrite cut by magnetite veins.
OP-5	TAH 22	Coarse, massive magnetite with carbonate quartz veining.
OP-6	South of TAH 19	10cm shear gouge.
OP-7	South of TAH 19	25cm shear gouge parallel to OP-6.

Sample	Location	Description
OP-8	South of TAH 19	1.35m chip across lithic crystal lapilli tuff between OP-6 and 7: dark grey groundmass with rounded and angular volcanic fragments to 2cm and 2-4mm mafic and plagioclase crystals. Mildly magnetic.
OP-9	South of TAH 19	Volcanic breccia - light brownish groundmass with 5-15cm angular green volcanic fragments.
OP-10	South of TAH 19	Rusty dyke (?)
OP-12	West of TAH 15 & 18	Felsic dyke (extends 89m south) orange weathered, pyritic.
OP-13	West of TAH 15 & 18	Low angle shear in felsic dyke.
OP-14	West of TAH 15 & 18	0.5m chip across pyritic shear in felsic dyke.
OP-15	West of TAH 15 & 18	Highly pyritic shear in felsic dyke.
OP-16	West of TAH 15 & 18	0.75m chip across 2 parallel shears with minor quartz veining.
OP-17	Wet of TAH 15 & 18	Pyritic andesitic "speckled" tuff similar to Upper Pit, TAH 15.
OP-18	West of TAH 15 & 18	Quartz veining at site of OP-17.
OP-19	West of TAH 15 & 18	5cm shear.
OP-20	West of TAH 15 & 18	3cm low angle shear in andesitic volcanic.

A P P E N D I X   E

ROCK SAMPLE LOCATION SKETCHES

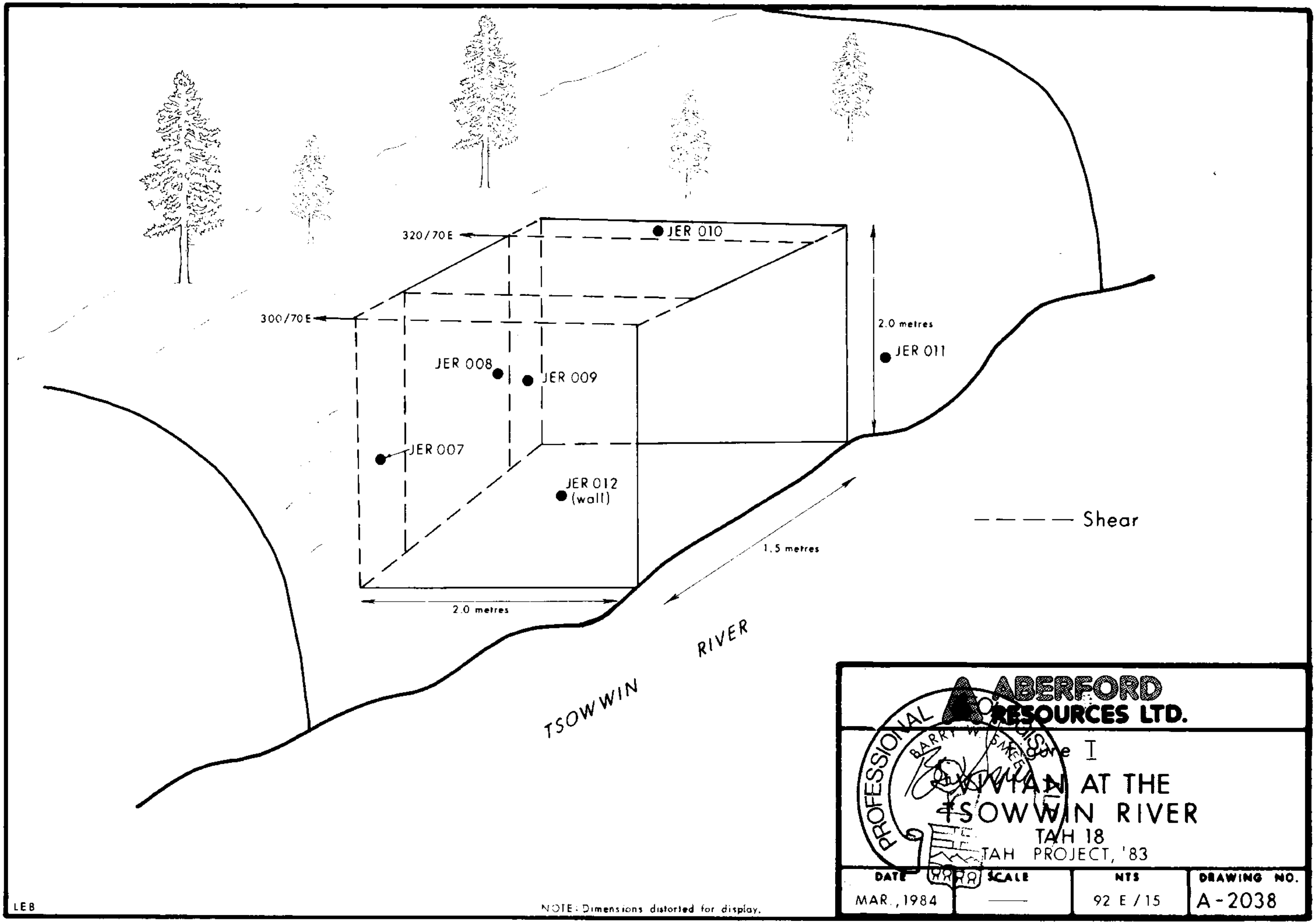

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Figure I

VIVIAN AT THE TSOWWIN RIVER

TAH 18

TAH PROJECT, '83

DATE	SCALE	NTS	DRAWING NO.
MAR., 1984	——	92 E / 15	A-2038

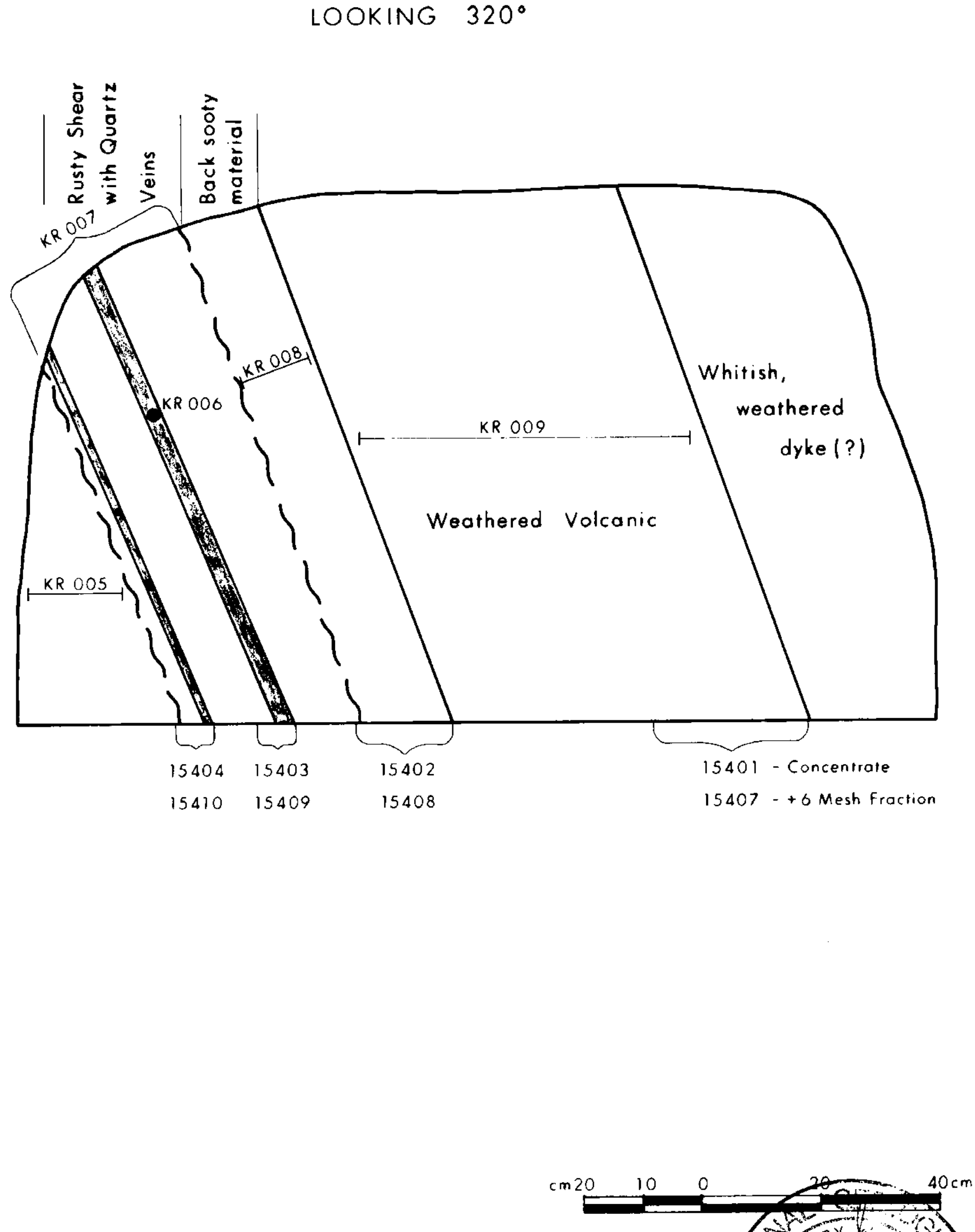

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Figure 11

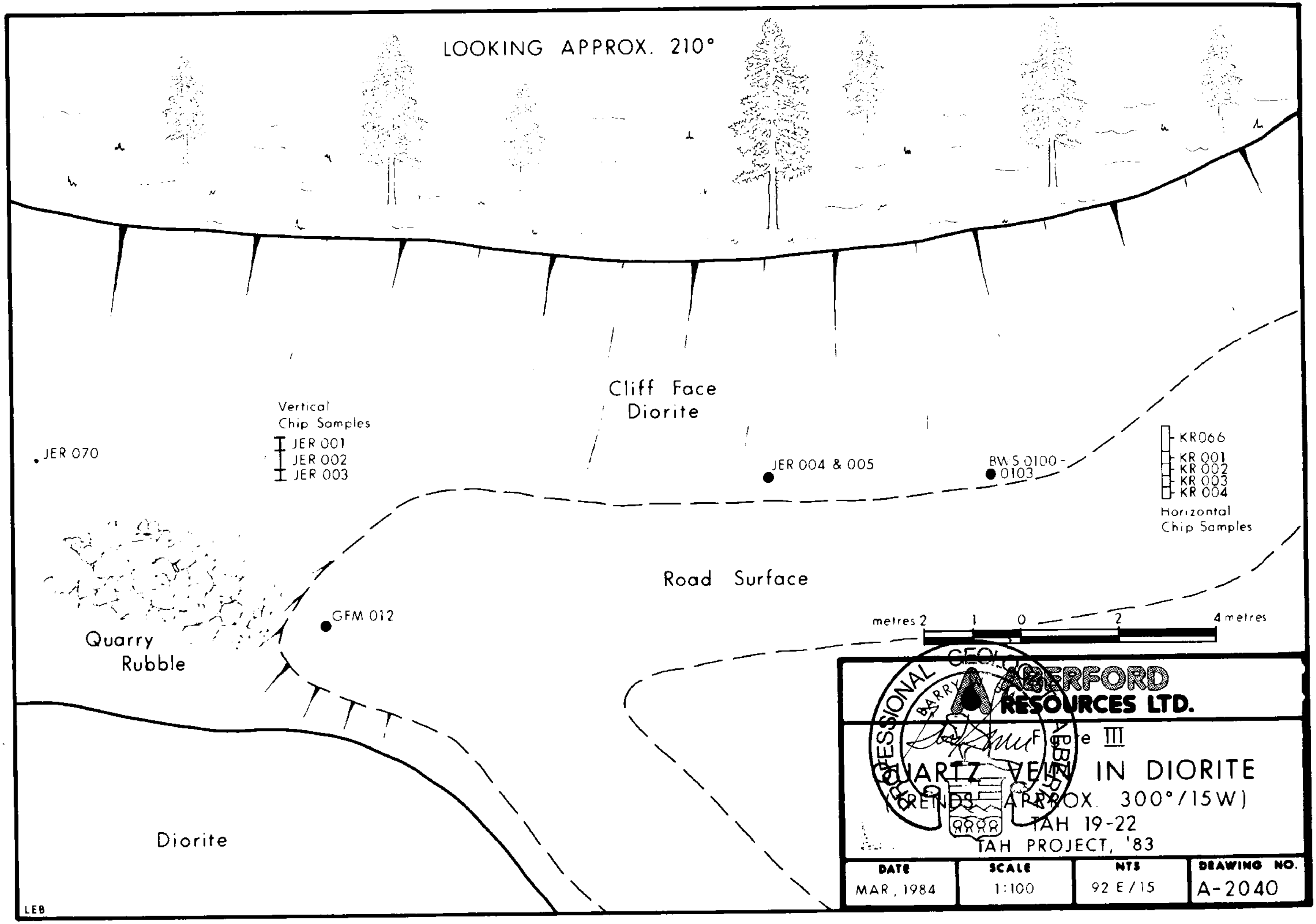
VIVIAN ADIT FACE

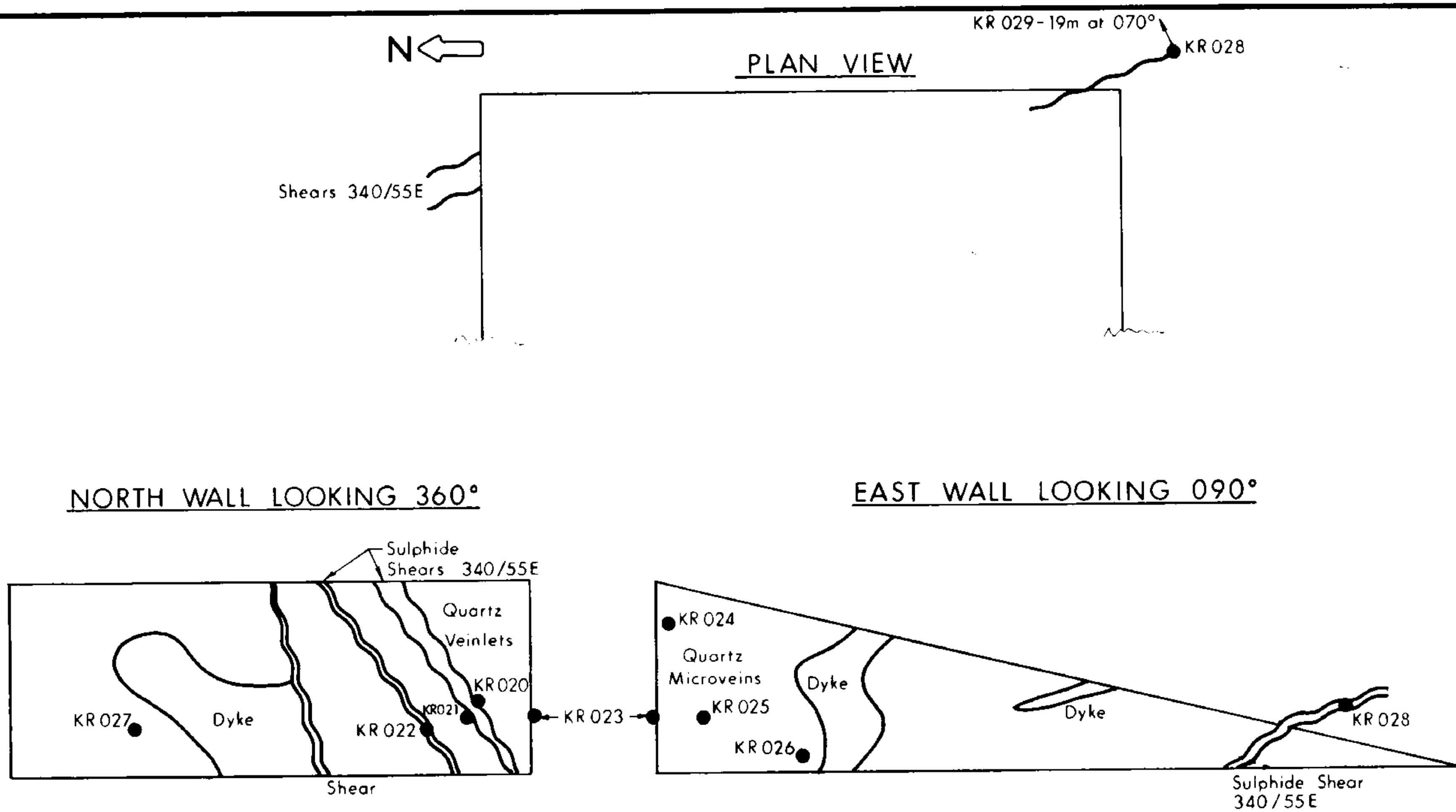
TAH 18

TAH PROJECT, '83

DATE	SCALE	NTS	DRAWING NO.
MAR., 1984	1:10	92 E/15	A-2039

LEB


LOOKING APPROX. 210°
Cliff Face
Diorite
Vertical
Chip Samples
JER 001
JER 002
JER 003
JER 070
JER 004 & 005
BWS 0100 -
0103
KR066
KR 001
KR 002
KR 003
KR 004
Horizontal
Chip Samples
Road Surface
GFM 012
Quarry
Rubble
Diorite
metres 2 1 0 2 4 metres
ABERFORD
RESOURCES LTD.
Figure III
QUARTZ VEIN IN DIORITE
(TRENDS APPROX. 300°/15W)
TAH 19-22
TAH PROJECT, '83
DATE
MAR, 1984
SCALE
1:100
NTS
92 E/15
DRAWING NO.
A-2040
LEB



metres 4 2 0 4 8 metres

LEB

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Figure IV

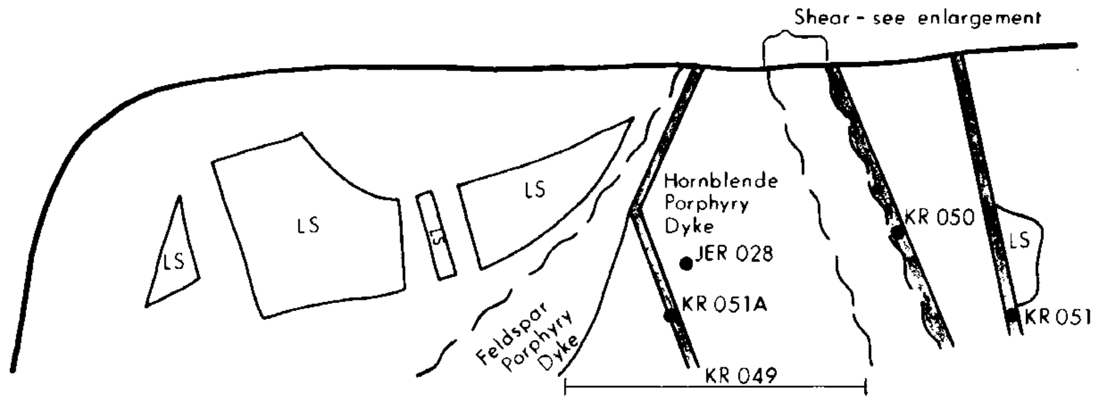
UPPER QUARRY

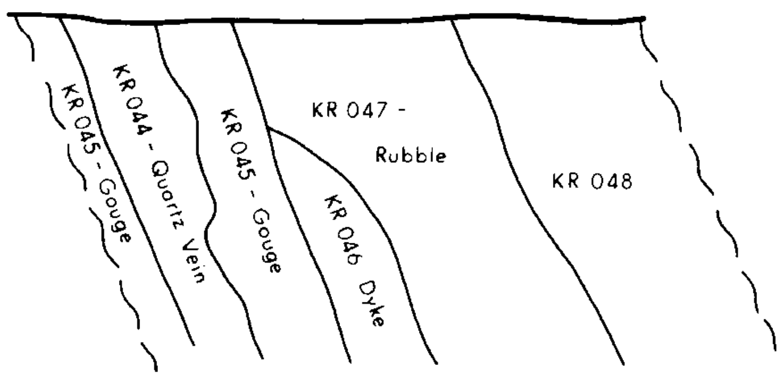
TAH 15

TAH PROJECT, '83

DATE	SCALE	NTS	DRAWING NO.
MAR., 1984	1:200	92 E/15	A-2041

LOOKING 320°





SHEAR ENLARGEMENT

Scale 1:20

cm 20 10 0 20 40 cm

metres 4 2 0 4 8 metres

Shear

Vein

LS Limestone

ABERFORD RESOURCES LTD.

Figure V

MIDDLE QUARRY

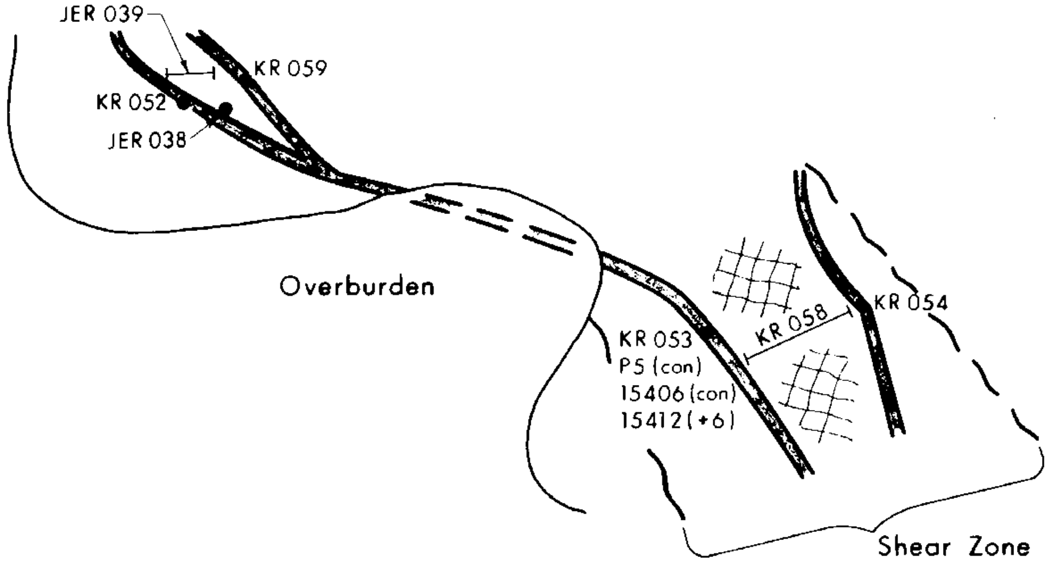
TAH 18

TAH PROJECT, '83

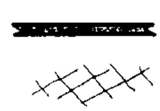
DATE	SCALE	NTS	DRAWING NO.
MAR., 1984	1:200	92 E / 15	A-2042

LEB

LOOKING 340°



Shear and vein trend: 330-340/55-65E



metres 2 1 0 2 4 metres

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Figure VI

DISCOVERY SITE WEST OF LOWER QUARRY

TAH PROJECT, '83

DATE	SCALE	NTS	DRAWING NO.
MAR., 1984	1:100	92 E/15	A-2043

LEB

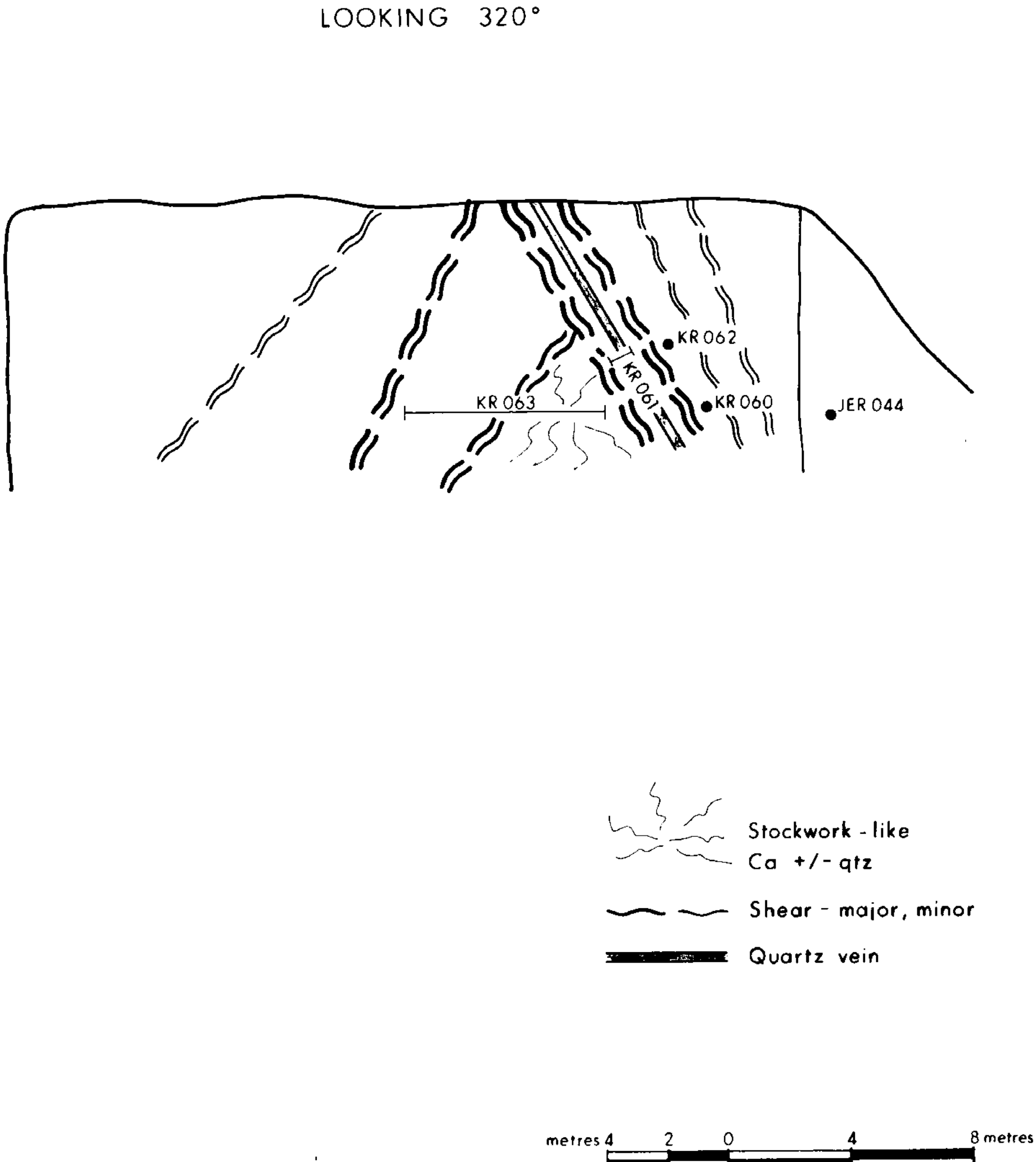

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Figure VII

LOWER QUARRY

TAH 18

TAH PROJECT, '83

DATE	SCALE	NTS	DRAWING NO.
MAR., 1984	1:200	92 E/15	A-2044

LEB

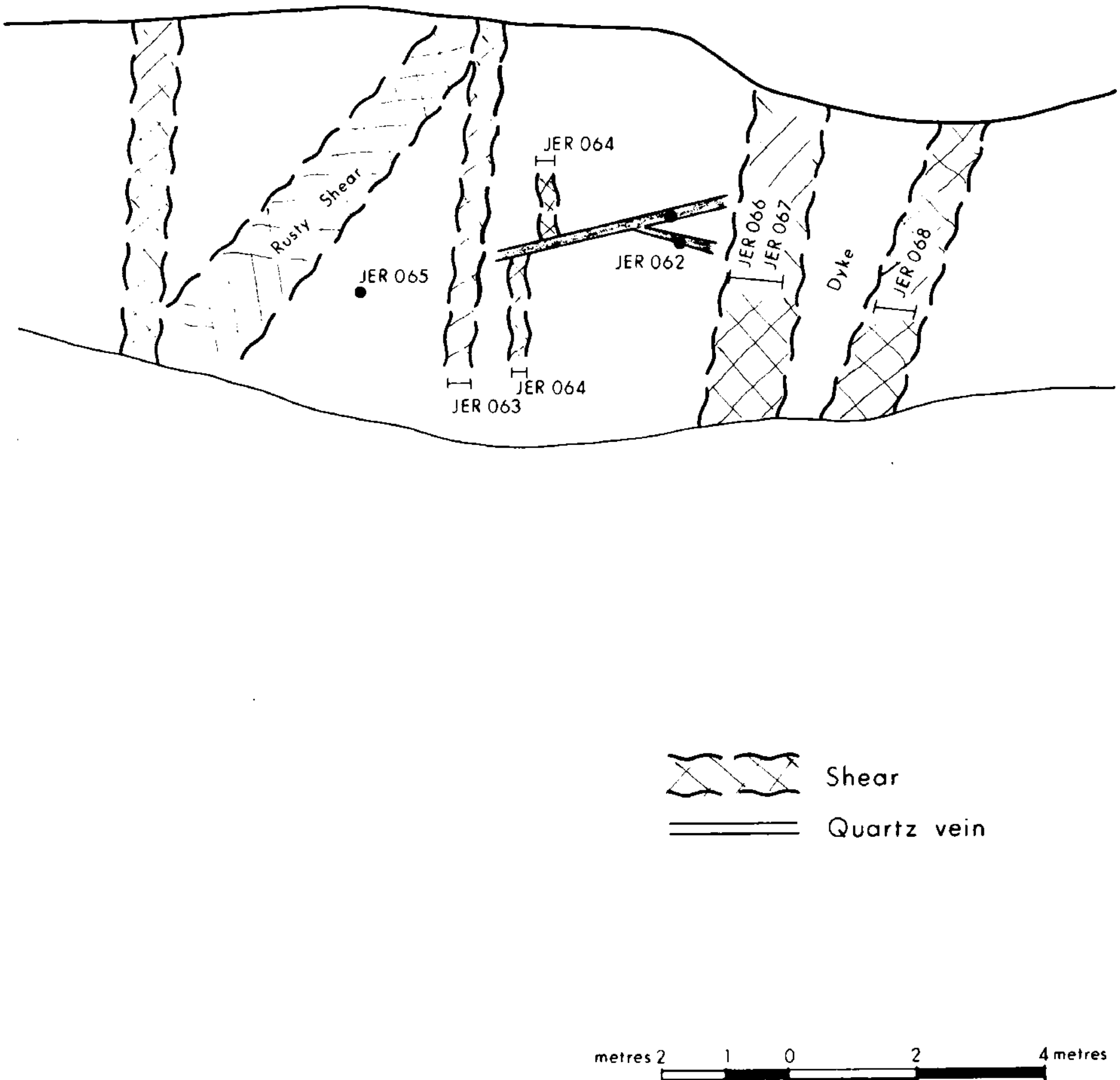

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Figure VIII

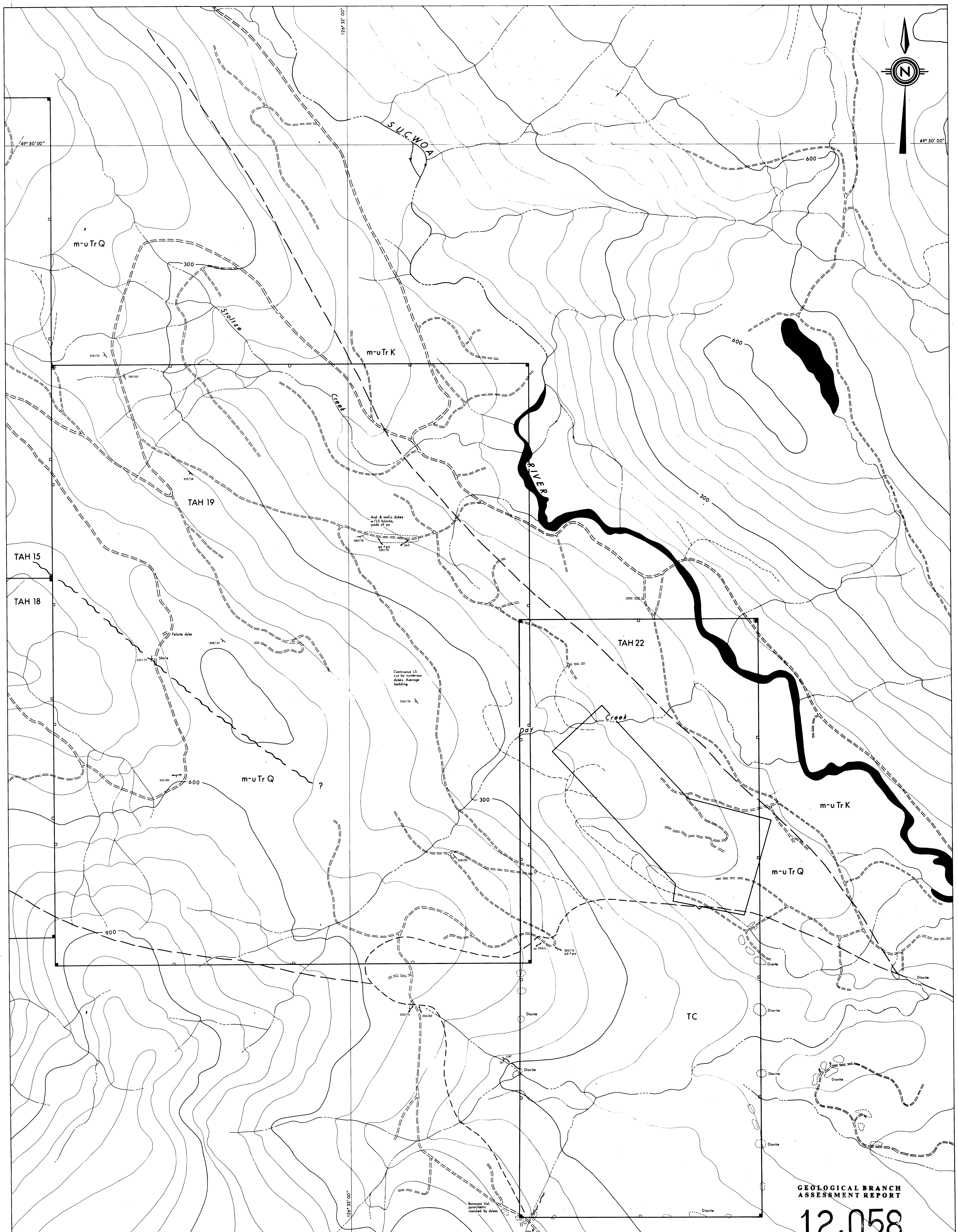
SHEAR, SITE OF JER 062 -68

TAH 18

TAH PROJECT, '83

DATE	SCALE	NTS	DRAWING NO
MAR., 1984	1:100	92 E/15	A-2045

LEB



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,058

PLATE 1

LEGEND

TERTIARY	(T)	C	CATFACE INTRUSIONS	tonalite, granodorite, small dioritic stocks, mafic and felsic sills and dykes
—— —— —— ——	INTRUSIVE CONTACT		—— —— —— ——	
LOWER JURASSIC	(lJ)	B	BONANZA GROUP	basaltic to rhyodacitic flows and pyroclastics, interbedded sediments
UPPER TRIASSIC	(uTr)	Pb	PARSONS BAY FORMATION	calcareous siltstone, shale and limestone
MIDDLE UPPER TRIASSIC	(m-uTr)	Q	QUATSINO FORMATION	limestone
MIDDLE UPPER TRIASSIC	(m-uTr)	K	KARMUTSEN FORMATION	pillowed and layered basalt, (aquagene) tuff and breccia

Plag - plagioclase
And. - andesite
Bas. - basalt
Hbl. - hornblende
Porph. - porphyry
LS - limestone
Silt - siltstone
Amygd. - amygdaloidal
Qz - quartz
Ca - calcite
Py - pyrite
Q - quarry for road fill
⚒ - old exploration workings
D - ore dump

(dashed outline)	Outcrop
defined ——, assumed — —	Geological boundary
defined ∿∿∿, assumed ∿ ∿∿	Fault
←+→, 090/65 : strike/dip	Shear
—┬—, 090/50 : strike/dip	Bedding
←┴→, 320/55 : strike/dip	Fracture, vein
═	Dyke
legal corner post, I.D. post, corner post	Claim line

metres 100 50 0 100 200 300 400 500 metres

TO ACCOMPANY REPORT NO. 23-83 BY J.E.R.

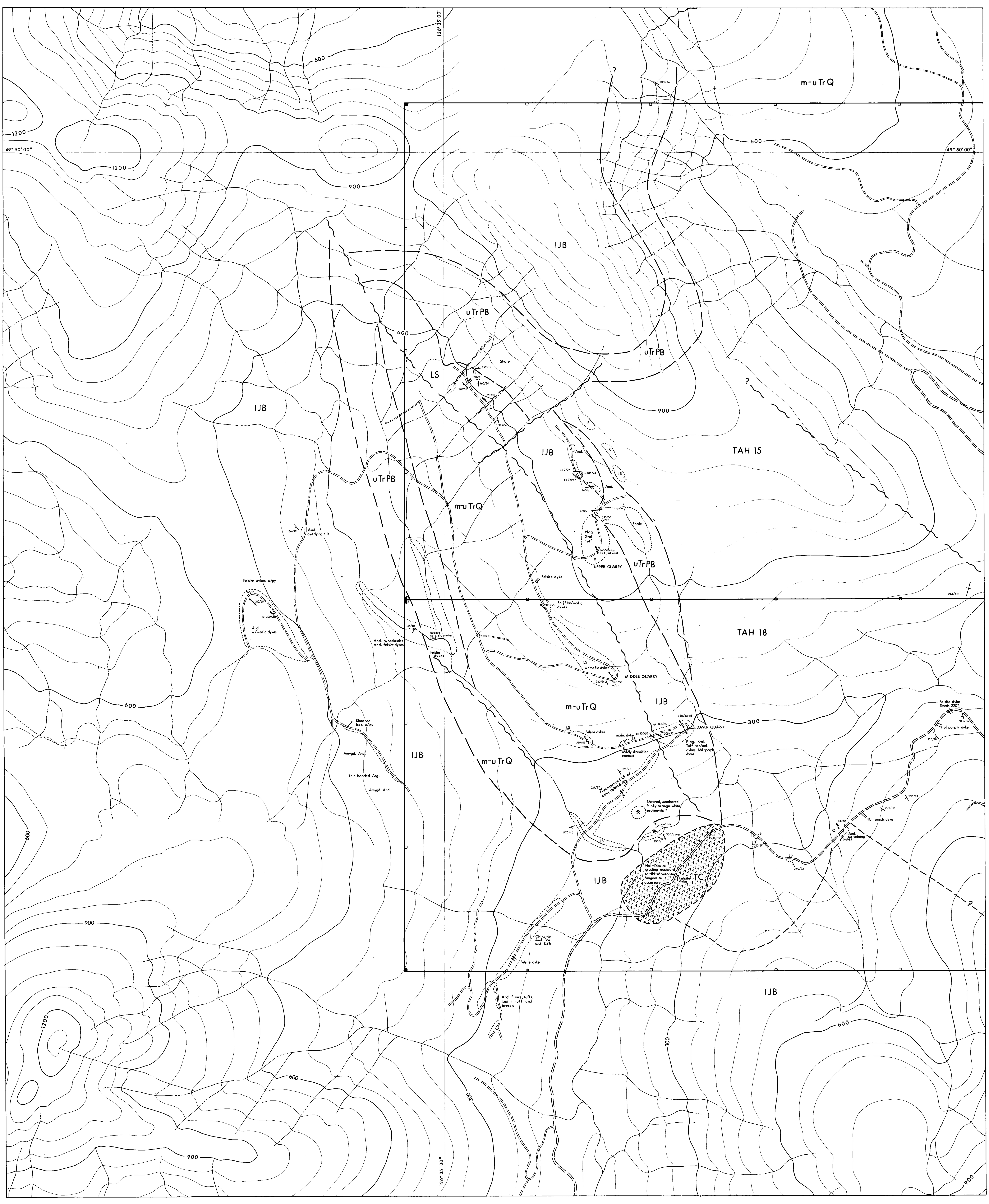
ABERFORD RESOURCES LTD.

PROFESSIONAL GEOLOGIST BARRY W. SMEE ALBERTA

GEOLOGY

TAH PROJECT, 1983

DATE	SCALE	NTS	DRAWING NO.
MARCH, 1984	1 : 5000	92 E/15	E-2035



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,058

GEOLOGY
"WEST SHEET"
TAH PROJECT
1983

E-2035

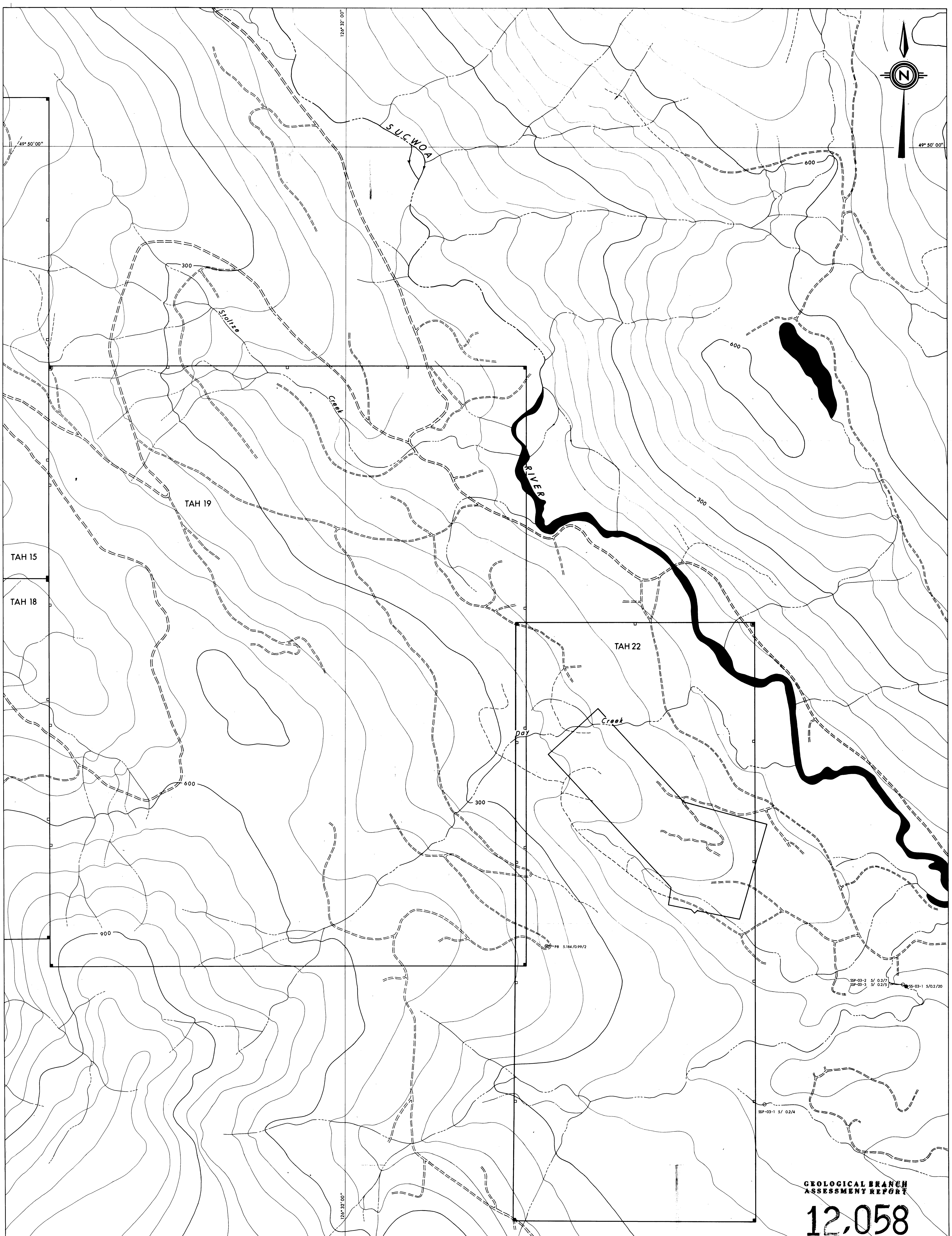


PLATE 3

metres 100 50 0 100 200 300 400 500 metres

LEGEND

- ○ HEAVY MINERAL SAMPLE - Au (ppb) / Ag (ppm) / As (ppm)
- ● STREAM SEDIMENT SAMPLE - Au(ppb) / Ag(ppm) / As(ppm)
- ⊗ PANNED ROCK CONCENTRATE - Au (oz./t) / Ag(oz/t) / As(ppm)
- ⊙ +6 MESH FRACTION - Au(oz/t) / Ag(oz/t)

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PROFESSIONAL GEOLOGIST BARRY W. SMEE ALBERTA

HEAVY MINERAL, STREAM SEDIMENT AND PANNED ROCK CONCENTRATES LOCATIONS AND RESULTS

"EAST SHEET"

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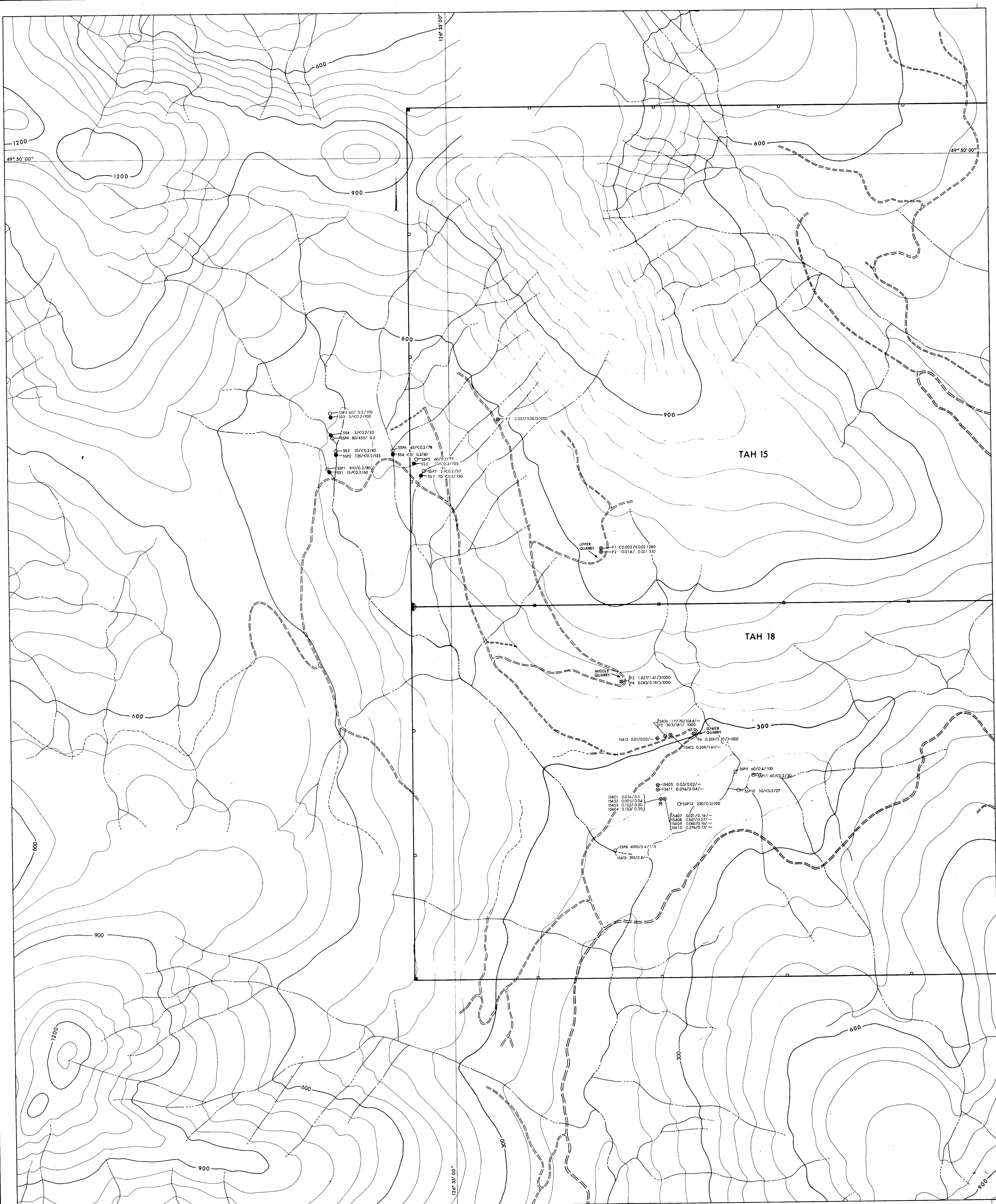
DATE	SCALE	NTS	DRAWING NO.
MARCH, 1984	1: 5000	92 E/15	E-2037



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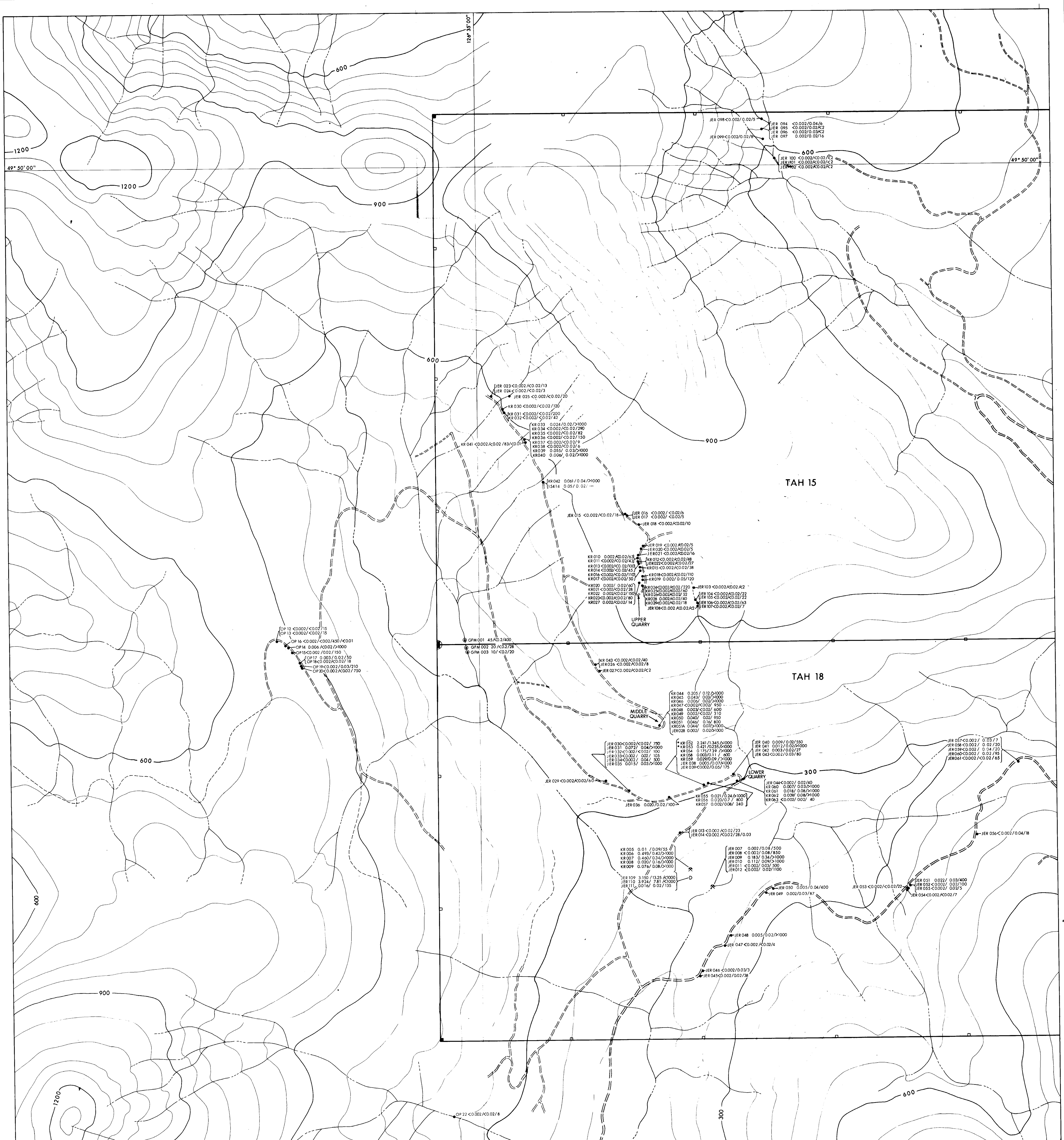
HEAVY MINERAL, STREAM SEDIMENT AND PANNED ROCK CONCENTRATES LOCATIONS AND RESULTS

"WEST SHEET"

TAH PROJECT
1983

E-2037



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ASSESSMENT REPORT

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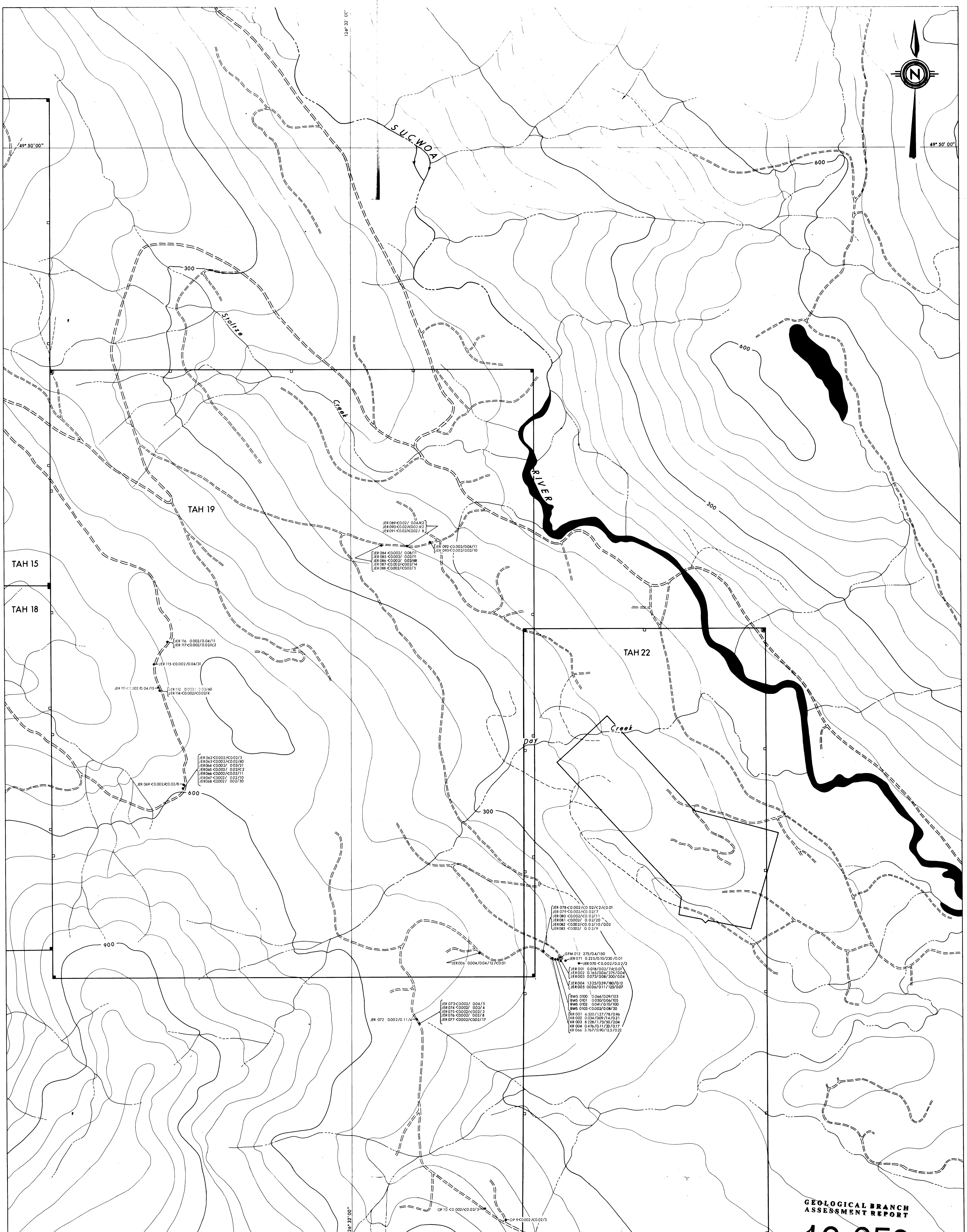
ROCK SAMPLE LOCATION AND RESULTS
"WEST SHEET"
TAH PROJECT
1983

E-2036



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PLATE 2

metres 100 50 0 100 200 300 400 500 metres

LEGEND

- ● Au (oz/t) / Ag (oz/t) / As (ppm) / Cu (% for selected samples), *(Average of 2 Samples)
- ⊙ Au (ppb) / Ag (ppm) / As (ppm)
- ⚒ Old exploration workings
- D Ore Dump

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ROCK SAMPLE LOCATION AND RESULTS

"EAST SHEET"

TAH PROJECT, 1983

DATE	SCALE	NTS	DRAWING NO.
MARCH, 1984	1: 5000	92 E/15	E-2036