(164)

124°00' 123°52'30" 123°45' 123°37'30" 123°30' 123°22'30"

53°00' 52°55' 52°50' 52°45' 52°40' 52°35' 52°30'

Mantled

Triassic, Jurassic and earlier reported here. G.S.C. Map 10-1957

Tv

K-C

PDS

DA

I.R. 29

I.R. 27

I.R. 28

I.R. 26

I.R. 24A

RIVER

Fishpot Lake

Possible Cinder Cone

Terrace Deposits

I.R. 20

INDIAN VILLAGE

Topography suggests flat-lying beds in this area.

SWAKING

Wutlus Lake

Creek

Mud Flow

Stump Lake

Marmot Lake

I.R. 22

I.R. 23

Benches upheld by lava beds.

Cinder Cone

Cultivated Land

Udy

Scattered Outcrops

Stump

BAEZAEKO

FALLS

Michelle

Probable Cinder Cone

PERMIT 1130

Dense Forest Cover

PERMIT 1129

PERMIT 1128

Mantled by glacial drift.

NAZKO

Esker

Glacial Drift

Terrace Deposits

Slump

Lava

Benches upheld by lava beds.

Probably includes pre-Tertiary beds

LOCAL

Hilly topography

occasional outcrops

Creek

Deepdown Lake

Outcrops in stream cuts.

Possible lava bed.

Possible outcrops in stream cuts.

Wentworth

Outcrops in this area.

Contact very indefinite on west side of Nazko River.

Numerous outcrops in stream cuts

Tm

Waterfall

Possible outcrops in stream cuts.

Davis

Hilly country scattered outcrops

PERMIT 1126

PERMIT 1125

Brown

Tchusinilth Lake

JENNINGS FALLS

NAZKO FALLS

Tsuius Creek

CLISBAKO

Top

Top?

Maxwell Creek

Aneko Creek

Numerous scattered outcrops or lava

Erratic dips

Lava

Slump

Probably includes pre-Tertiary beds

Tv?

NAZKO RIVER AREA

LEGEND

AGE	MAP SYMBOL	FORMATION
QUATERNARY	Q	Recent alluvium, glacial drift and terrace deposits.
TERTIARY AND (?) UPPER CRETACEOUS	Tv	Rhyolitic to basaltic lavas and associated volcanics. Includes some shale, conglomerate and greywacke.
CARBONIFEROUS AND LATER	K-C	Mainly undifferentiated sedimentary and volcanic rock.

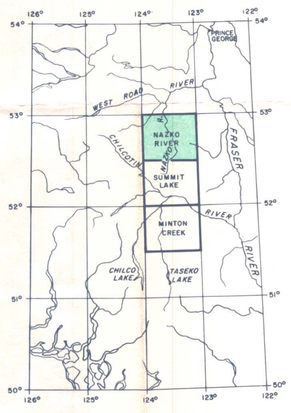
PUNTZI AREA

LEGEND

	AGE	SYMBOL	FORMATION
	QUATERNARY	Q	Recent alluvium, glacial drift and terrace deposits
TERTIARY	MIOCENE AND/OR PLIOCENE	Tm	Basaltic and andesitic lavas, tuff, breccia. Volcanic cinder cones. Includes some shale, conglomerate and greywacke.
TERTIARY	PALEOCENE THROUGH OLIGOCENE	Top	Rhyolitic to basaltic lavas, tuff, breccia and minor sediments. May include older rocks.
	MIDDLE JURASSIC AND (?) EARLIER	Jhz	Hazelton group (in part). Andesite, tuff, breccia, conglomerate, sandstone, and shale.

NOTE: Stratigraphic identification adapted from Geological Survey of Canada Maps 10-1957 and 12-1959.

INDEX TO MAP SHEETS



MAGNETIC DECLINATION 26°00' EAST

GEOLOGICAL SYMBOLS

- Bedding appears horizontal on photographs
- Recognizable dip 1° or less
- Dip group 1, 1° to 3°
- Dip group 2, 3° to 10°
- Dip group 3, 10° to 25°
- Dip group 4, 25° to 45°
- Dip group 5, 45° to nearly vertical
- Bedding appears vertical on photographs
- Overturned bedding
- General dip of beds having subordinate folds
- Dip and strike. Amount of dip cannot be estimated on photographs
- Dip component
- FO 5° Field observed dip or component
- FOP 5° Field observed published dip
- 5° Photo estimated dip
- PDS Possible dip slope
- SR Strike line of prominent ridge or bedding. Direction of dip cannot be determined on photographs.
- Fracture or joint
- DA Distinctive alignment, possible structural significance
- f—U···f Fault, dotted where extended through Quaternary deposits
- f——f Fault, position indefinite
- f—?—?—f Fault, inferred
- f—▲—f Thrust fault, triangles on thrust sheet
- Anticline, Arrow denotes plunge. Diamond denotes approximate position of apex.
- Syncline, Arrow denotes plunge. Break and cross bars denote approximate position of high point.
- Anticline and syncline, position indefinite
- Anticline and syncline, inferred
- Anticline and syncline based on dips in Miocene and/or Pliocene (?) volcanics (Tm). Structures may not extend to depth.
- f—f Axis of anticline appears to coincide with fault trace
- f—f Axis of syncline appears to coincide with fault trace
- Structural terrace
- Monocline
- Apparent unconformable contact
- Contact, dashed where indefinite
- Contact, inferred
- K Key bed
- SB Stratigraphic break
- X Outcrop area
- X? Possible outcrop area
- Prominent scarp or steep slope.
- Minor scarp or slope
- Glacial lineation indicating direction of ice movement

GEOMORPHIC SYMBOLS

- Strike and dip interpreted from geomorphic evidence, mainly topographic expression.

Linear stream segment interpreted as strike controlled.

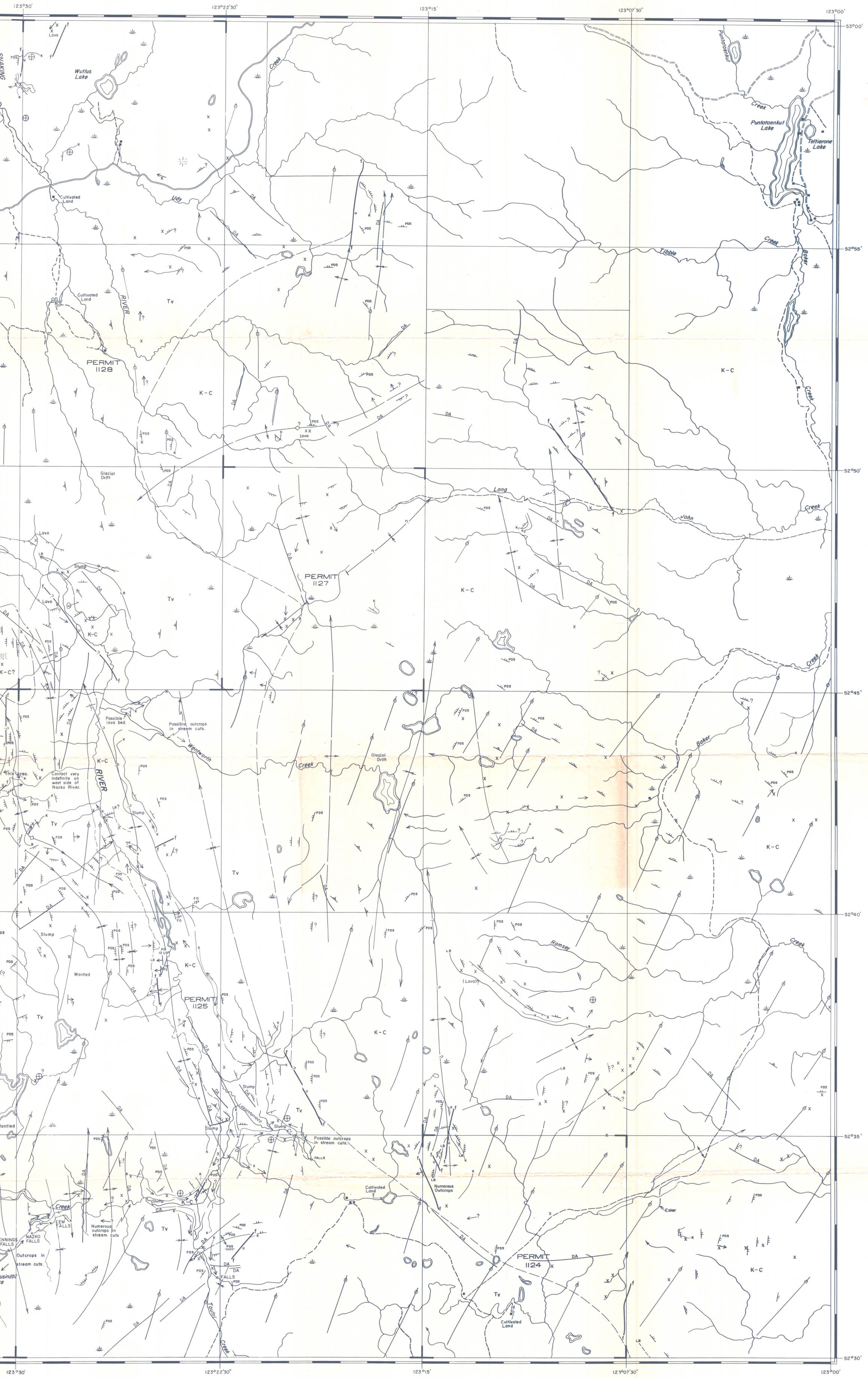
Linear or curvilinear stream segment interpreted as structurally controlled.

CULTURAL AND

- All
- Im
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- Gr
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- Br
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- De
- Sw
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- Ab
- Oil
- Ab
- Ga
- Oil
- Su
- Dr
- 1120 Ho
- I.R. 4 In

NAZKO RIVER
93 B NW

Map



935-6

AREAL GEOLOGY AND STRUCTURAL INTERPRETATION MAP OF THE NAZKO RIVER AREA CENTRAL BRITISH COLUMBIA

935-6

PETROLEUM RESOURCES BRANCH
ASSESSMENT REPORT
NO. 935 ENCLOSURES

—Prepared by—
V. ZAY SMITH ASSOCIATES
CALGARY, ALBERTA

SCALE
One inch to one mile
5000 3000 1000 0 5000 10,000 15,000 FEET
1/2 1/4 0 1 2 3 MILES

—Prepared for—
HONOLULU OIL CORPORATION
JUNE 1959

GEOLOGICAL SYMBOLS

- Anticline. Arrow denotes plunge. Diamond denotes approximate position of apex.
- Syncline. Arrow denotes plunge. Break and cross bars denote approximate position of high point.
- Anticline and syncline, position indefinite
- Anticline and syncline, inferred
- Anticline and syncline based on dips in Miocene and/or Pliocene (?) volcanics (Tm) Structures may not extend to depth.
- Axis of anticline appears to coincide with fault trace
- Axis of syncline appears to coincide with fault trace
- Structural terrace
- Monocline
- Apparent unconformable contact
- Contact, dashed where indefinite
- Contact, inferred
- Key bed
- Stratigraphic break
- Outcrop area
- Possible outcrop area
- Prominent scarp or steep slope.
- Minor scarp or slope
- Glacial lineation indicating direction of ice movement

GEOMORPHIC SYMBOLS

- Strike and dip interpreted from geomorphic evidence, mainly topographic expression.

CULTURAL AND GEOGRAPHICAL SYMBOLS

- All weather road.
- Improved road
- Unimproved road, main access
- Minor road or trail
- Mine or quarry
- Airstrip
- Triangulation station
- Bench mark
- Town, population 1–250
- Town, population 251–1000
- Town, population over 1000
- Building
- Group of buildings
- Mine
- Seams
- Braided stream
- Lake or pond
- Intermittent lake or pond
- Depression or sink hole
- Swamp or marsh area (muskeg)
- Well location or drilling well
- Abandoned location
- Oil well
- Abandoned oil well
- Gas well
- Oil and gas well
- Suspended location
- Dry and abandoned test
- 1120 Honolulu Oil Corp. permit
- I R 4 Indian Reserve

93-B-11, 12, 13, 14
N.W. Taylor
Mar 61
50
(4)

M7A

125°00' 124°52'30" 124°45' 124°37'30" 124°30' 124°22'30"

53°00' 52°55' 52°50' 52°45' 52°40' 52°35' 52°30'

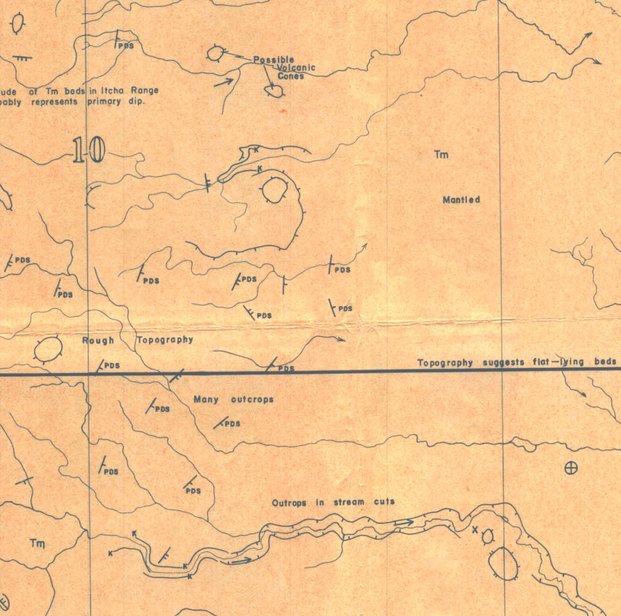
Blue Lake
Top?
NEYASRI LAKE
Tsetzi Lake
Identification based on G.S.C. Map 10-1957. However, photographic characteristics of rocks differ from Top unit mapped elsewhere. Possible lithologic change is suggested or pre-Tertiary rocks maybe present.
Slump
Tsetzi Creek
Short Creek
RIVER
KUSHYA
Itcha Lake
COGLISTIKO
BAEZAEKO
NORTH HILL
Volcanic Cone
BALDFACE MTN.
G.S.C. Map 10-1957 reports Tm on Baldface Mtn; however, older rocks may be present.
WHITETOP MTN.
ITCHA MTN.
DOWNTON
ITCHA RANGE
CHILCOTIN
PERMIT 1248
PERMIT 1249
PERMIT 1250
ANTICLINE
Creek
PUNKUTLAENKUT LAKE
Punkutlaenkut
Wooley Creek
Tm
Mantled
Top
Top?
PDS
DA
Possible Volcanic Cone
Possible Volcanic Cones
Volcanic Cone
Numerous Small Lakes
Pitted Lava Plain
Topography suggests flat-lying beds.
Topography suggests flat-lying beds in this area
Flat-lying beds crop out in stream cut
Flat-lying beds crop out in stream cuts
Columnar jointing suggests volcanic neck or flow.
Dense Forest Cover
May include Top
May include older rock
Esker
Esker?
Rough Topography
Many outcrops
Outcrops in stream cuts
Possible Volcanic Flow
Jhz
Mountainous Terrain
Many Outcrops
FO Shale in Float
FO Dark gray shale, sandstone and red shale.
Identification adapted from G.S.C. Map 10-1957
Jhz contacts and fault positioned after GCS Map 10-1957
FO Jhz in stream cut
A major source of Tm volcanism probably centered in Itcha Range. Numerous volcanic flows and cones are present.
Attitude of Tm beds in Itcha Range probably represents primary dip.
15
10

LEGEND

AGE		SYMBOL	FORMATION
QUATERNARY		Q	Recent alluvium, glacial drift and terrace deposits
TERTIARY	MIOCENE AND/OR PLIOCENE	Tm	Basaltic and andesitic lavas, tuff, breccia. Volcanic cinder cones. Includes some shale, conglomerate and greywacke.
TERTIARY	PALEOCENE THROUGH OLIGOCENE	Top	Rhyolitic to basaltic lavas, tuff, breccia and minor sediments. May include older rocks.
MIDDLE JURASSIC AND (?) EARLIER		Jhz	Hazelton group (in part). Andesite, tuff, breccia, conglomerate, sandstone, and shale.

NOTE: Stratigraphic identification adapted from Geological Survey of Canada Maps 10-1957 and 12-1959.

INDEX TO MAP SHEETS



PUNTZI AREA

NAZKO RIVER AREA (PREVIOUS PROJECT)

ONE INCH TO TWENTY MILES

V. ZAY SMITH ASSOC. LTD.

GEOLOGICAL SYMBOLS

- Bedding appears horizontal on photographs
- Recognizable dip 1° or less
- Dip group 1, 1° to 3°
- Dip group 2, 3° to 10°
- Dip group 3, 10° to 25°
- Dip group 4, 25° to 45°
- Dip group 5, 45° to nearly vertical
- Bedding appears vertical on photographs
- Overturned bedding
- General dip of beds having subordinate folds
- Dip and strike. Amount of dip can not be estimated on photographs
- Dip component
- FO 5° Field observed dip or component
- FOP 5° Field observed published dip
- 5° Photo estimated dip
- POS Possible dip slope
- SR Strike line of prominent ridge or bedding. Direction of dip cannot be determined on photographs.
- Fracture or joint
- DA Distinctive alignment, possible structural significance
- Fault, dotted where extended through Quaternary deposits
- Fault, position indefinite
- Fault, inferred
- Thrust fault, triangles on thrust sheet
- Trace of bedding in stream cut appears horizontal. May represent flat-lying beds or strike.
- Anticline. Arrow denotes plunge. Diamond denotes approximate position of apex.
- Syncline. Arrow denotes plunge. Break and cross bars denote approximate position of high point.
- Anticline and syncline, position indefinite
- Anticline and syncline, inferred
- Anticline and syncline based on dips in Miocene and/or Pliocene (?) volcanics (Tm). Structures may not extend to depth.
- Axis of anticline appears to coincide with fault trace
- Axis of syncline appears to coincide with fault trace
- Structural terrace
- Monocline
- Apparent unconformable contact
- Contact, dashed where indefinite
- Contact, inferred
- Key bed
- SB Stratigraphic break
- X Outcrop area
- X? Possible outcrop area
- Prominent scarp or steep slope
- Minor scarp or slope
- Glacial lineation indicating direction of ice movement

GEOMORPHIC SYMBOLS

Linear stream segment interpreted as strike controlled.

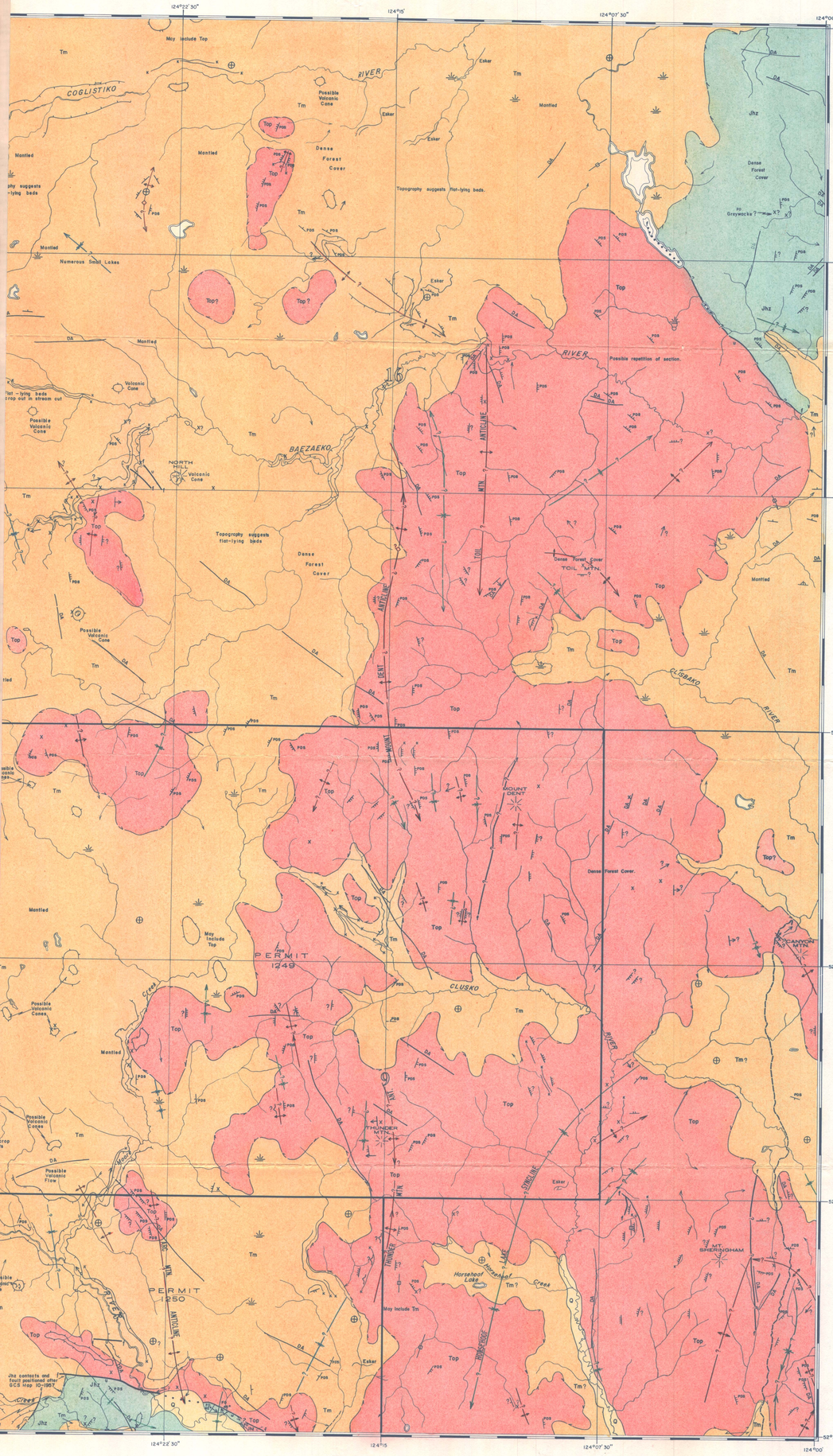
Linear or curvilinear stream segment interpreted as structurally controlled

Strike and dip interpreted from geomorphic evidence

Anticline and syncline based on geomorphic evidence. Dashed where position indefinite. Arrow indicates direction of plunge.

CULTU

THUNDER MOUNTAIN
93 C NE



GEOLOGICAL SYMBOLS

- Anticline. Arrow denotes plunge. Diamond denotes approximate position of apex.
- Syncline. Arrow denotes plunge. Break and cross bars denote approximate position of high point.
- Anticline and syncline, position indefinite
- Anticline and syncline, inferred
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- Stratigraphic break
- Outcrop area
- Possible outcrop area
- Prominent scarp or steep slope
- Minor scarp or slope
- Glacial lineation indicating direction of ice movement

GEOMORPHIC SYMBOLS

- Anticline and syncline based on geomorphic evidence. Dashed where position indefinite. Arrow indicates direction of plunge.

CULTURAL AND GEOGRAPHICAL SYMBOLS

- Provincial highway
- Improved road
- Unimproved road, main access
- Minor road or trail
- Mine or quarry
- Airstrip
- Triangulation station
- Bench mark
- Town, population 1 - 250
- Town, population 251 - 1000
- Town, population over 1000
- Building
- Group of buildings
- Fence
- Streams
- Braided stream
- Lake or pond
- Intermittent lake or pond
- Depression or sink hole
- Swamp or marsh area (muskeg)
- Well location or drilling well
- Abandoned location
- Oil well
- Abandoned oil well
- Gas well
- Oil and gas well
- Suspended location
- Dry and abandoned test

935-7

AREAL GEOLOGY AND STRUCTURAL INTERPRETATION MAP OF THE N. PUNTZI AREA CENTRAL BRITISH COLUMBIA

935-7

93-C-NE

—Prepared by—

V. ZAY SMITH ASSOCIATES LTD.

CALGARY, ALBERTA

SCALE

One inch to one mile

5000 2500 0 5000 10,000 15,000 FEET

2 1/2 0 5 10 MILES

—Prepared for—

HONOLULU OIL CORPORATION

NOV., 1960

PETROLEUM ... BRANCH
ASSESSMENT REPORT
NO. 935 ENCLOSURES

N.W. Taylor
Mar 61

50-3

MBA

125°00' 124°52'30" 124°45' 124°37'30" 124°30' 124°22'30"

52°30' 52°25' 52°20' 52°15' 52°10' 52°05' 52°00'

Holte Creek
Holtry Creek
Dusty Lake
Aktoklin Lake
Long Lake
Sucker Lake
Sucker Creek
McClinchy Creek
Clearwater Lake
Chantslar Lake
SATAH MTN.
7
2

Mantled
Tm
Jhz
PDS
PERMIT 1250
ARC MOUNTAIN
Possible Volcanic Cones
Esker
Probable Volcanic Cone
May include Top
Possible Volcanic Neck
DA
Topography suggests flat-lying beds in this area
Palmer Creek
Knoll Creek
Jorgensen Creek
Possible Volcanic Cone
PUNTZI LAKE
Fo Igneous Intrusive
Photographic characteristics of rocks differ from Top unit elsewhere, suggesting lithology or presence of pre-Tertiary
Top
Probable outcrops in stream cuts
CHILANKO
Possible Volcanic Neck
May include older rocks
TATLA LAKE
Possible Volcanic Flow
Possible Volcanic Cone
EAGLE LAKE

LEGEND

AGE		SYMBOL	FORMATION
QUATERNARY		Q	Recent alluvium, glacial drift and terrace deposits
TERTIARY	MIOCENE AND/OR PLIOCENE	Tm	Basaltic and andesitic lavas, tuff, breccia. Volcanic cinder cones. Includes some shale, conglomerate and greywacke.
TERTIARY	PALEOCENE THROUGH OLIGOCENE	Top	Rhyolitic to basaltic lavas, tuff, breccia and minor sediments. May include older rocks.
MIDDLE JURASSIC AND (?) EARLIER		Jhz	Hazelton group (in part). Andesite, tuff, breccia, conglomerate, sandstone, and shale.

NOTE: Stratigraphic identification adapted from Geological Survey of Canada Maps 10-1957 and 12-1959.



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PUNTZI AREA
NAZKO RIVER AREA (PREVIOUS PROJECT)

ONE INCH TO TWENTY MILES

V. ZAY SMITH ASSOC. LTD.

GEOLOGICAL SYMBOLS

- Bedding appears horizontal on photographs
- Recognizable dip 1° or less
- Dip group 1, 1° to 3°
- Dip group 2, 3° to 10°
- Dip group 3, 10° to 25°
- Dip group 4, 25° to 45°
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- Bedding appears vertical on photographs
- Overturned bedding
- General dip of beds having subordinate folds
- Dip and strike. Amount of dip cannot be estimated on photographs
- Dip component
- F.O. 5° Field observed dip or component
- F.O.P. 5° Field observed published dip
- 5° Photo estimated dip
- PDS Possible dip slope
- SR Strike line of prominent ridge or bedding. Direction of dip cannot be determined on photographs.
- Fracture or joint
- DA Distinctive alignment, possible structural significance
- Fault, dotted where extended through Quaternary deposits
- Fault, position indefinite
- Fault, inferred
- Thrust fault, triangles on thrust sheet
- Trace of bedding in stream cut appears horizontal. May represent flat-lying beds or strike.
- Anticline, Arrow denotes plunge, Diamond denotes approximate position of apex.
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- Anticline and syncline, position indefinite
- Anticline and syncline, inferred
- Anticline and syncline based on dips in Miocene and/or Pliocene (?) volcanics (Tm). Structures may not extend to depth.
- Axis of anticline appears to coincide with fault trace
- Axis of syncline appears to coincide with fault trace
- Structural terrace
- Monocline
- Apparent unconformable contact
- Contact, dashed where indefinite
- Contact, inferred
- Key bed
- SB Stratigraphic break
- X Outcrop area
- X? Possible outcrop area
- Prominent scarp or steep slope.
- Minor scarp or slope
- Glacial lineation indicating direction of ice movement

GEOMORPHIC SYMBOLS



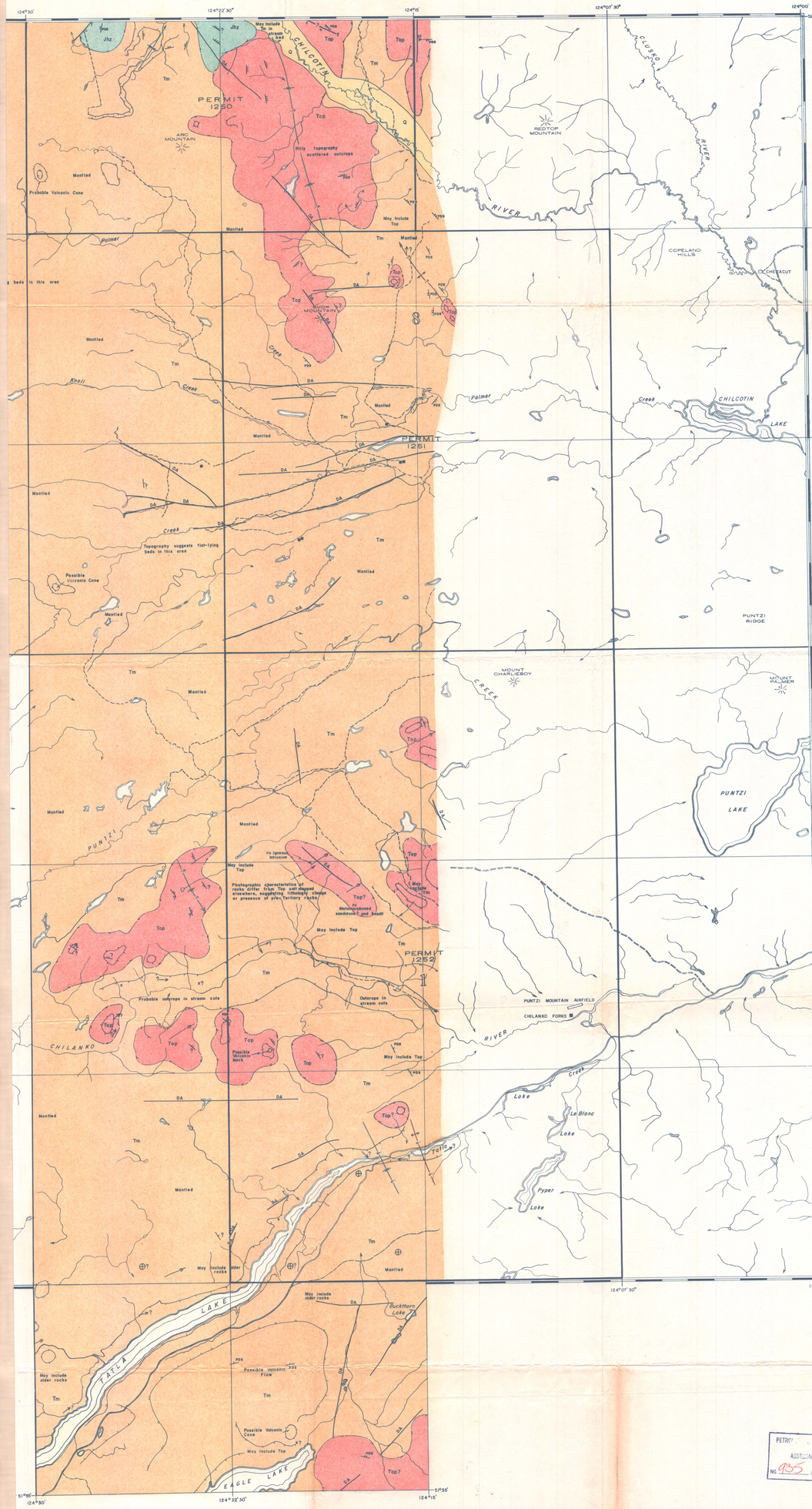
Linear stream segment interpreted as strike controlled.

Linear or curvilinear stream segment interpreted as structurally controlled.

Strike and dip interpreted from geomorphic evidence

Anticline and syncline based on geomorphic evidence. Dashed where position indefinite. Arrow indicates direction of plunge.

PUNTZI CREEK
93 C SE



124°30' 124°22'30" 124°15' 124°07'30" 124°00'
52°30' 52°25' 52°20' 52°15' 52°10' 52°05' 52°00'
51°50' 51°55'

GEOLOGICAL SYMBOLS

- Bedding appears horizontal on photographs
- Recognizable dip 1° or less
- Dip group 1, 1° to 5°
- Dip group 2, 3° to 10°
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- Outcrop area
- Possible outcrop area
- Prominent scarp or steep slope.
- Minor scarp or slope
- Glacial lineation indicating direction of ice movement

GEOMORPHIC SYMBOLS

- Stream segment interrupts strike controlled.
- Linear or curvilinear stream segment interpreted as structurally controlled.
- Strike and dip interpreted from geomorphic evidence
- Anticline and syncline based on geomorphic evidence. Dashed where position indefinite. Arrow indicates direction of plunge.

CULTURAL AND GEOGRAPHICAL SYMBOLS

- Provincial highway
- Improved road
- Unimproved road, main access
- Minor road or trail
- Mine or quarry
- Airstrip
- Triangulation station
- Bench mark
- Town, population 1 - 250
- Town, population 251 - 1000
- Town, population over 1000
- Building
- Group of buildings
- Fence
- Streams
- Braided stream
- Lake or pond
- Intermittent lake or pond
- Depression or sink hole
- Swamp or marsh area (muskeg)
- Well location or drilling well
- Abandoned location
- Oil well
- Abandoned oil well
- Gas well
- Oil and gas well
- Suspended location
- Dry and abandoned test

SCALE
One inch to one mile
5000 0 5000 10,000 15,000 FEET
1/2 1/4 0 1 2 3 MILES

PETROLEUM INFORMATION
ASSOCIATION REPORT
NO 935 ENCLOSURES

935-B

AREAL GEOLOGY AND STRUCTURAL INTERPRETATION MAP OF THE S- PUNTZI AREA CENTRAL BRITISH COLUMBIA

—Prepared by—
V. ZAY SMITH ASSOCIATES LTD.
CALGARY, ALBERTA

—Prepared for—
HONOLULU OIL CORPORATION
NOV., 1960

N.W. Taylor Mar 61