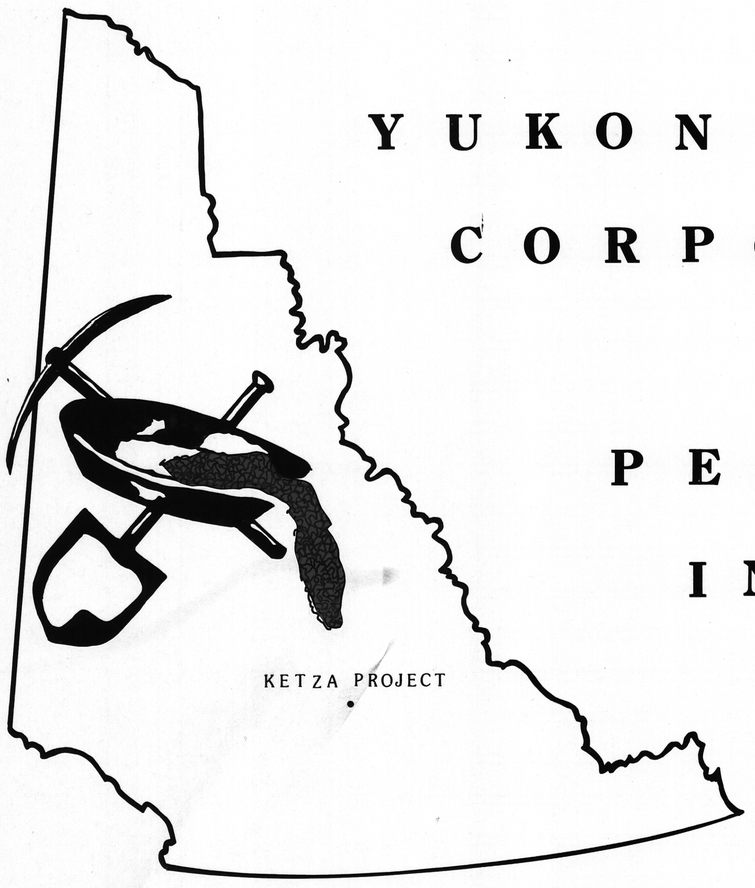


YUKON MINERALS CORPORATION

PERREX RESOURCES INCORPORATED

JOINT VENTURE

AREA B

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

To Accompany Report By B.P. FOWLER, P. Geol.

Compilation Of Work Done On Property During APRIL To NOVEMBER, 1988.

Data Compiled By: B.P. FOWLER, P. Geol.
Project Manager
POLARIS CONSULTING
Reg Harding

Dated: DECEMBER 31, 1988

004448

inches
centimetres
This reference scale bar has been added to the original image. It will print proportionally as the image, therefore it can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY

614000 E | 615000 E | 616000 E | 617000 E | 618000 E

837000 N | 836000 N | 835000 N

GREG CLAIMS

HV 105 YA 99596 | HV 106 YA 99597 | VER 10 YA 98610 | VER 11 YA 98611 | HV 216 YB 01726 | HV 215 YB 01725 | HV 218 YB 01728 | BEN 15 Y 13597

HV 103 YA 99594 | HV 104 YA 99595 | VER 7 YA 90981 | VER 8 YA 90982 | VER 9 YA 90983 | CARIBOU 2 89297 | CARIBOU 1 89296

HV 101 YA 99592 | HV 102 YA 99593 | VER 5 YA 90979 | VER 6 YA 90980 | PAX 2 YA 90472 | PAX 1 YA 90471

HV 99 YA 99590 | VER 4 YA 90978 | CARIBOU 3 89298 | PAX 3 YA 90473

HV 97 YA 99588 | VER 3 | PAX 4 YA 90474

HV 95 YA 99586 | VER 2 YA 90976 | RAX 2 YA 90480 | RAX 1 YA 90479 | PAX 6 YA 90476 | PAX 5 YA90475

HV 93 YA 99584 | HV 94 YA 99585 | VER 1 YA 90975 | RAX 4 YA 90482 | RAX 3 YA 90481 | PAX 8 YA 90478 | PAX 7 YA 90477

HV 264 YB 01703 | RAX 6 YA 90484 | RAX 5 YA 90483

HV 263 YB 01702 | HV 92 YA 99583 | HV 117 YA 99608 | HV 118 YA 99609

HV 276 YB 01711 | HV 274 YB 01710 | HV 272 YB 01709

VER 12 YB 01843 | VER 13 YB 01844 | VER 14 YB 01845

PS ZONE | RAY ZONE | JENNY ZONE | GROUNDHOG ZONE | PT ZONE | BIG MOUNTAIN ZONE | No.1 ZONE | No.2 ZONE | No.3 ZONE

(202) (203) (204) (205) (206) (207) (208) (212) (214) (215) (216) (217) (218) (219) (220) (221) (222) (223) (224) (225) (226) (228) (229)

NO POST FOUND

(TRIG. TIE – LOCATION APPROX.)

DWG. No. BU-S1 BU-G1 BU-A1

DWG. No. BP-G8 BP-A8

DWG. No. BP-G1 BP-A1

DWG. No. BP-G9

DWG. No. BP-G10

DWG. No. BP-G6

DWG. No. BP-G7

DWG. No. BP-G2 BP-A2

DWG. No. BP-A3

DWG. No. BP-G5 BP-A5

DWG. No. BP-A4

DWG. No. B-G1

1° 59'

25° 11'

TRUE NORTH | GRID | MAGNETIC

INDEX

DWG. No. (AREA/ZONE)(VIEW) — (TYPE)(PLAN No.)

AREA / ZONE	VIEW	TYPE	PLAN No.
"A" P – PN; L – LUCKY; – LUCKY (MF)	P – SURFACE PLAN	G – GEOLOGY	NUMBERED SEQUENTIALLY BY AREA/ZONE AND VIEW.
"B" Z – No. 2; – No. 2A; 3 – No. 3; – No. 3A; Z – ZEUS; – DELTA; – A VEIN; – B VEIN; – C VEIN	S – DRILL SECTION	A – ASSAY	
"C" G – GROUNDHOG; – JENNY; PT – PT ZONE	L – LONGITUDINAL	R – RESERVE	
	U – UNDERGROUND	S – SURVEY	
		GY – GEOPHYSICS	
		GS – GEOLOGY SECTION	

LEGEND

UNIVERSAL TRANSVERSE MERCATOR GRID

(208) — SURVEY POINT No.

2 2 — POST No.

HV 95 YA 99586 | HV 96 YA 99587 — CLAIM NAME; TAG No.

LOCATION LINE WITH DIRECTION OF STAKING

POST FOUND

CLAIM LOCATION APPROXIMATE (NO POSTS SURVEYED)

GEOLOGICAL SHOWING

ALL CLAIM POSTS SURVEYED BY THOMSON & ILES, OCTOBER 1987, WITH THE EXCEPTION OF CARIBOU CLAIM POSTS. THESE WERE SURVEYED BY POLARIS CONSULTING, AUGUST 1988.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:5000

METRES 0 20 60 100 200 300 400 500 600 METRES
FEET 0 100 300 500 1000 1500 2000 FEET

AREA "B" INDEX PLAN

DATE: DECEMBER 31, 1988 | TECH.: R.H. | DRAWN BY: POLARIS CONSULTING, R.H.

DWG. No. B-1

inches 0 1 2
centimetres 0 1 2 3 4 5

This reference scale bar has been added to the original image. It will scale correctly if the image has not been resized and can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

614000 E | 615000 E | 616000 E | 617000 E | 618000 E

837000 N | 836000 N | 835000 N

GREG CLAIMS

HV 105 YA 99596 | HV 106 YA 99597 | VER 10 YA 98610 | VER 11 YA 98611 | HV 216 YB 01726 | HV 215 YB 01725 | HV 218 YB 01728 | BEN 15 Y 13597

HV 103 YA 99594 | HV 104 YA 99595 | VER 7 YA 90981 | VER 8 YA 90982 | VER 9 YA 90983 | CARIBOU 2 89297 | CARIBOU 1 89296

HV 101 YA 99592 | HV 102 YA 99593 | VER 5 YA 90979 | VER 6 YA 90980 | PAX 2 YA 90472 | PAX 1 YA 90471

HV 99 YA 99590 | HV 100 YA 99591 | VER 3 YA 90977 | VER 4 YA 90978 | CARIBOU 3 89298 | PAX 3 YA 90473 | PAX 4 YA 90474

HV 97 YA 99588 | HV 98 YA 99589 | VER 1 YA 90975 | VER 2 YA 90976 | RAX 2 YA 90480 | RAX 1 YA 90479 | PAX 6 YA 90476 | PAX 5 YA90475

HV 95 YA 99586 | HV 96 YA 99587 | HV 266 YB 01705 | RAX 4 YA 90482 | RAX 3 YA 90481 | PAX 8 YA 90478 | PAX 7 YA 90477

HV 93 YA 99584 | HV 94 YA 99585 | HV 264 YB 01703 | RAX 6 YA 90484 | RAX 5 YA 90483

HV 92 YA 99583 | HV 117 YA 99608 | HV 118 YA 99609

HV 263 YB 01702 (TRIG. TIE – LOCATION APPROX.)

HV 276 YB 01711 | HV 274 YB 01710 | HV 272 YB 01709 | HV 270 YB 01708

HV 268 YB 01707 | HV 267 YB 01706 | HV 265 YB 01704

VER 12 YB 01843 | VER 13 YB 01844 | VER 14 YB 01845

PS ZONE | RAY ZONE | JENNY ZONE | GROUNDHOG ZONE | PT ZONE | BIG MOUNTAIN ZONE | No.1 ZONE | No. 2 ZONE | No. 3 ZONE | A & B ZONES | ZEUS ZONE

UNDERGROUND WORKINGS

(201) (202) (203) (204) (205) (206) (207) (208) (209) (210) (211) (212) (213) (214) (215) (216) (217) (218) (219) (220) (221) (222) (223) (224) (225) (226) (227) (228) (229)

(TRIG. TIE – LOCATION APPROX.) | NO POST FOUND

N | 1° 59' | 29° | GRID | TRUE NORTH | MAGNETIC

LEGEND

UNIVERSAL TRANSVERSE MERCATOR GRID

(208) SURVEY POINT No.

POST No.

HV 95 YA 99586 | HV 96 YA 99587 — CLAIM NAME, TAG No.

LOCATION LINE WITH DIRECTION OF STAKING

POST FOUND

CLAIM LOCATION APPROXIMATE (NO POSTS SURVEYED)

GEOLOGICAL SHOWING

ALL CLAIM POSTS SURVEYED BY THOMSON & ILES, OCTOBER 1987, WITH THE EXCEPTION OF CARIBOU CLAIM POSTS. THESE WERE SURVEYED BY POLARIS CONSULTING, AUGUST 1988.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:5000

METRES 0 20 60 100 200 300 400 500 600 METRES

FEET 0 100 300 500 1000 1500 2000 FEET

inches 0 1 2 | 0 1 2 3 4 5 centimetres

This reference scale bar has been added to the original image. It will therefore change as the image is reduced or enlarged, and can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

PLAN OF SURVEYED CLAIMS & LOCATION OF MAIN ZONES

DATE: DECEMBER 31, 1988 | TECH.: R.H.

DRAWN BY: POLARIS CONSULTING, R.H.

DWG. No. BC-S1

615000m E
615200m E
615400m E
615600m E
6835800m N
6835600m N
6835400m N
6835200m N
6835000m N
TO CAMP
HV 100
HV 270
VER 3
HV 98
HV 96
HV 268
HV 267
HV 266
RAX 2
RAX 4
VER 1
HV 265
dike
Ds+seric
D(ph)
Qtzite band
DELTA
Ds
D
D(Ph)
Damphi
Dcb
Ds+Ph
Ds+thin Ph
Pbs stringer
gravel
Dike
PORTAL
SHOP
RADIO REPEATER
NO. 3-A
No. 3-A ZONE LEVEL TRACE
No. 3 ZONE LEVEL TRACE
No. 2 ZONE LEVEL TRACE
1747 LEVEL
NO.2
NO.2-A
No.3
ZEUS
Baseline
A
A'
B"
C'
88-42
88-43
88-40
88-41
88-39
88-14
88-13
88-10
88-9
88-37
88-38
88-6
88-8
88-7
88-35
88-36
88-11
88-12
88-17
88-16
88-19
88-18
88-20
69-2-3
69-2-4
88-15
69-2-6
69-2-5
69-2-1
69-2-2
69-2-7
69-2-8
4589
4590
4102
213
211
ZEUS
SURFACE AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag oz/ton	Pb %	Zn %	Au oz/ton
79.40	4.32	3.70	4.85	2.88	0.004

NO. 3 ZONE
SURFACE AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag oz/ton	Pb %	Zn %	Au oz/ton
51.00	5.77	3.31	3.52	3.21	0.010

NO. 2 ZONE
SURFACE AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag oz/ton	Pb %	Zn %	Au oz/ton
37.50	7.35	4.13	6.81	2.95	0.013

TRUE NORTH
GRID
MAGNETIC
5500
5600
5700
5800
5900
6000
6100
6200
6300
6400

STRATIGRAPHY

	Pb–Zn–py veins
Dike	syenite (?) up to 4m wide, may have dissipy
Ds(Qz+Ph)	see below
Dcb	Carbonaceous dolostone. Black, fine grained. Some phyllitic bands.
Damphi	Amphipora dolostone. Medium grained, greenish on fresh surface, reddish on weathered surface.
D(Ph)	Mostly phyllitic dolostone with bands of Ds. Poor host of Pb–Zn mineralization.
Ds(Qz+Ph)	Silicified with bands of bluish quartzite, grey quartzite and cross–bedded siltsone or phyllite. Brown on weathered surface.
Ds	Silicified fine grained with sericite. Light grey to white on weathered surface.
D	Massive medium grained. Underlain by other dolostone outside mapped grid.

Vein Zone
Mineralized Float
1747 Level
Vein Zone Level Trace
Diamond Drill Hole
Claim Post
35° Bedding
35° Foliation
Fault Zone

* NOTE: CONTOUR INTERVAL: 100 ft

inches
centimetres
This reference scale bar has been added to the original image. It will scale at the same ratio as the original and can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:1000
METRES 0 10 20 40 60 80 100 120 METRES
FEET 0 30 60 90 120 FEET

AREA B – SURFACE GEOLOGY
No. 2 & No. 3 ZONES

DATE: 88–11–28 | TECH.: M.I./B.P.F. | DWG. No. B–G1
DRAWN BY: NEW CONCEPT DRAFTING LTD.

615000m E
615200m E
615400m E
615600m E
6835800m N
6835600m N
6835400m N
5500
5600
5700
5800
5900
6100
6200
6300
6400
3+00 W
2+70 W
2+40 W
2+10 W
1+80 W
1+50 W
0+00 W
0+40
DELTA
NO. 3-A
PORTAL
SHOP
ZEUS
No.3
1747 LEVEL
"A"
"B"
NO.2
NO.2-A
N
TRUE NORTH
5°
GRID
MAGNETIC
VLF-EM CONDUCTOR (DEFINED, PROBABLE)
IN PHASE
OUT OF PHASE
VERTICAL SCALE
+20
+15
+10
+5
-5
-10
SURVEY DIRECTION
VLF STATION CUTLER, MAINE
* NOTE: CONTOUR INTERVAL: 100 ft
LEGEND
Vein Zone
Mineralized Float
1747 Level
inches
centimetres
This reference scale bar is accurate only for the original image. It will scale at the same ratio as the image, therefore it can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:1000

METRES 0 4 8 12 16 20 40 60 80 100 120 METRES
FEET 0 20 40 60 80 100 200 300 400 FEET

VLF-EM SURVEY – PROFILE PLAN
No. 2 & No. 3 ZONES

DATE: 88-11-28	TECH.: M.I./B.P.F./R.H.	DWG. No. B-GY1
DRAWN BY: NEW CONCEPT DRAFTING LTD.		

615000m E
615200m E
615400m E
615600m E
6835800m N
6835600m N
6835400m N
3+00 W
2+70 W
2+40 W
2+10 W
1+80 W
1+50 W
0+00 W
0+00
DELTA
NO. 3-A
ZEUS
No.3
"4"
"8"
PORTAL
SHOP
1747 LEVEL
NO.2
NO.2-A
5500
5600
5700
5800
5900
6000
6100
6200
6300
6400
N
TRUE NORTH
GRID
MAGNETIC
1° 59'
VERTICAL SCALE
+20
+15
+10
+5
-5
-10
SURVEY DIRECTION
VLF STATION
CUTLER, MAINE
• NOTE: CONTOUR INTERVAL: 100 ft
LEGEND
Vein Zone
Mineralized Float
1747 Level
inches
centimetres
YUKON GEOLOGICAL SURVEY
This reference scale bar has been added to the original plan. It was at this scale at the same size as the image; therefore it can be used as a reference for the original size.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:1000
METRES 0 4 8 12 16 20 40 60 80 100 120 METRES
FEET 0 20 40 60 80 100 200 300 400 FEET

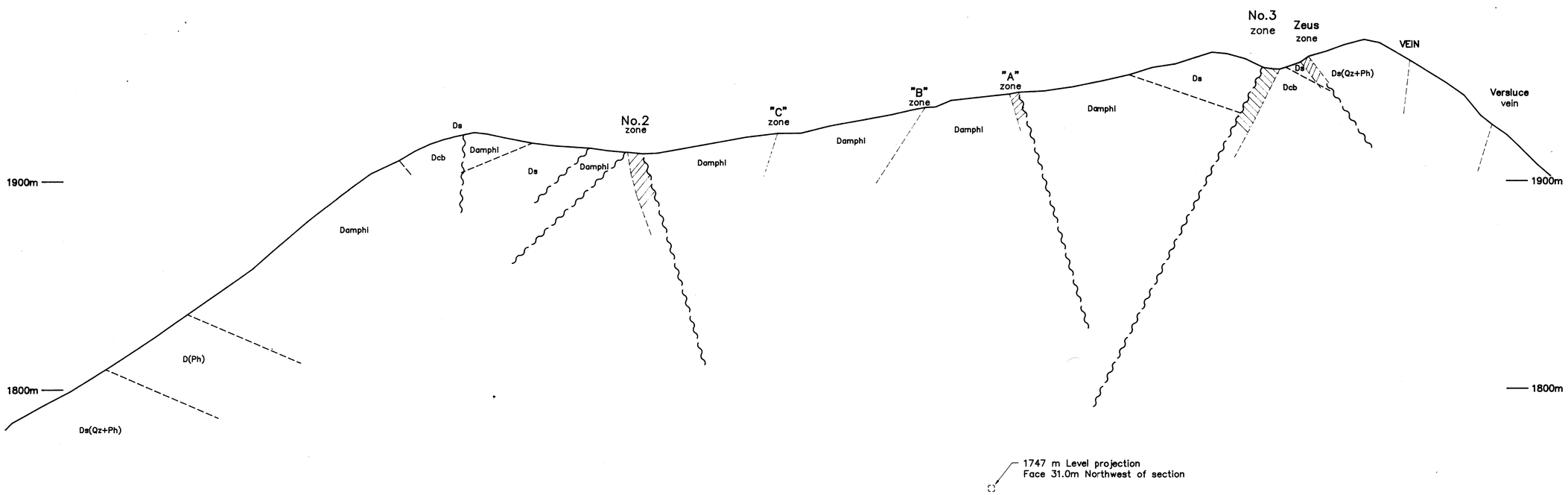
VLF-EM SURVEY – FRAZER FILTER
No. 2 & No. 3 ZONES

DATE: 88-11-28
TECH.: M.I./B.P.F./R.H.
DRAWN BY: NEW CONCEPT DRAFTING LTD.
DWG. No. B-GY1A

A
South West

A'
North East

L-5+00 S | L-4+00 S | L-3+35 S | L-1+00 S | L-0+00 S



STRATIGRAPHY

	Pb–Zn–py veins
Dike	syenite (?) up to 4m wide, may have dissipy
Ds(Qz+Ph)	see below
Dcb	Carbonaceous dolostone. Black, fine grained. Some phyllitic bands.
Damphi	Amphipora dolostone. Medium grained, greenish on fresh surface, reddish on weathered surface.
D(Ph)	Mostly phyllitic dolostone with bands of Ds. Poor host of Pb–Zn mineralization.
Ds(Qz+Ph)	Silicified with bands of bluish quartzite, grey quartzite and cross–bedded siltsone or phyllite. Brown on weathered surface.
Ds	Silicified fine grained with sericite. Light grey to white on weathered surface.
D	Massive medium grained. Underlain by other dolostone outside mapped grid.

Scale 1:1000

0 20 40 60 80
metres

inches
centimetres

YUKON GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will therefore be the same size as the image. Therefore it can be used as a reference for the original size.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:1000

METRES 0 10 20 40 60 80 100 120 METRES
FEET 0 10 30 90 150 210 270 330 390 FEET

AREA B – SECTION ALONG BASELINE
LOOKING NORTHWEST

DATE: DECEMBER 31, 1988	TECH.: M.I.	DWG. No.
DRAWN BY: NEW CONCEPT DRAFTING LTD.		B–GS1

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

REVISIONS

LEGEND

LITHOLOGY		MINOR COMPONENTS	
Ct	CHERT	d	DOLOMITIC
D	DOLOSTONE	(F)	FOSSILIFEROUS
M	MUDSTONE	s	SILICIFIED
Sh	SHALE	a	ARGILLACEOUS
Ph	PHYLLITE	c	CALCAREOUS
Sl	SILTSTONE	cy	CLAY/DOUGE
Qz	QUARTZITE/ARENITE	b	BLEACHED
C	CONGLOMERATE	m	MANGANESE
A	ANDESITE	h	HEMATITE
S	SYENITE	l	LIMONITE
		ph	PHYLLITIC
		st	SILTY
		cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE, REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
PY PYRITE
VC VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorite +/- mobsorite +/- quartz +/- quartz-iron carbonate gangue; barite zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; 31% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; 31% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible surface)

STRUCTURE

- BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded dolarenite or phyllite
- Carbonaceous dolostone, black, fine grained minor phyllite
- Amphipora +/- stromatoporoid dolostone
- Phyllitic dolostone with bands of silicified dolostone
- Silicified dolostone, fine grained, sereictic
- Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- Grey - buff calcareous phyllite, thinly laminated
- Dark green mafic flow or sill

EARLY CAMBRIAN
- Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

REFERENCE

- In front of section
- Behind section
- Control Station

DRILL HOLE DATA

AZIMUTH OF SECTION

inches / centimetres

NOTE: Elevations are Geodetic. All distances and elevations are in metres unless noted.

TO ACCOMPANY REPORT BY R.P. FOWLER, M.SCI., DATED DECEMBER 31, 1988

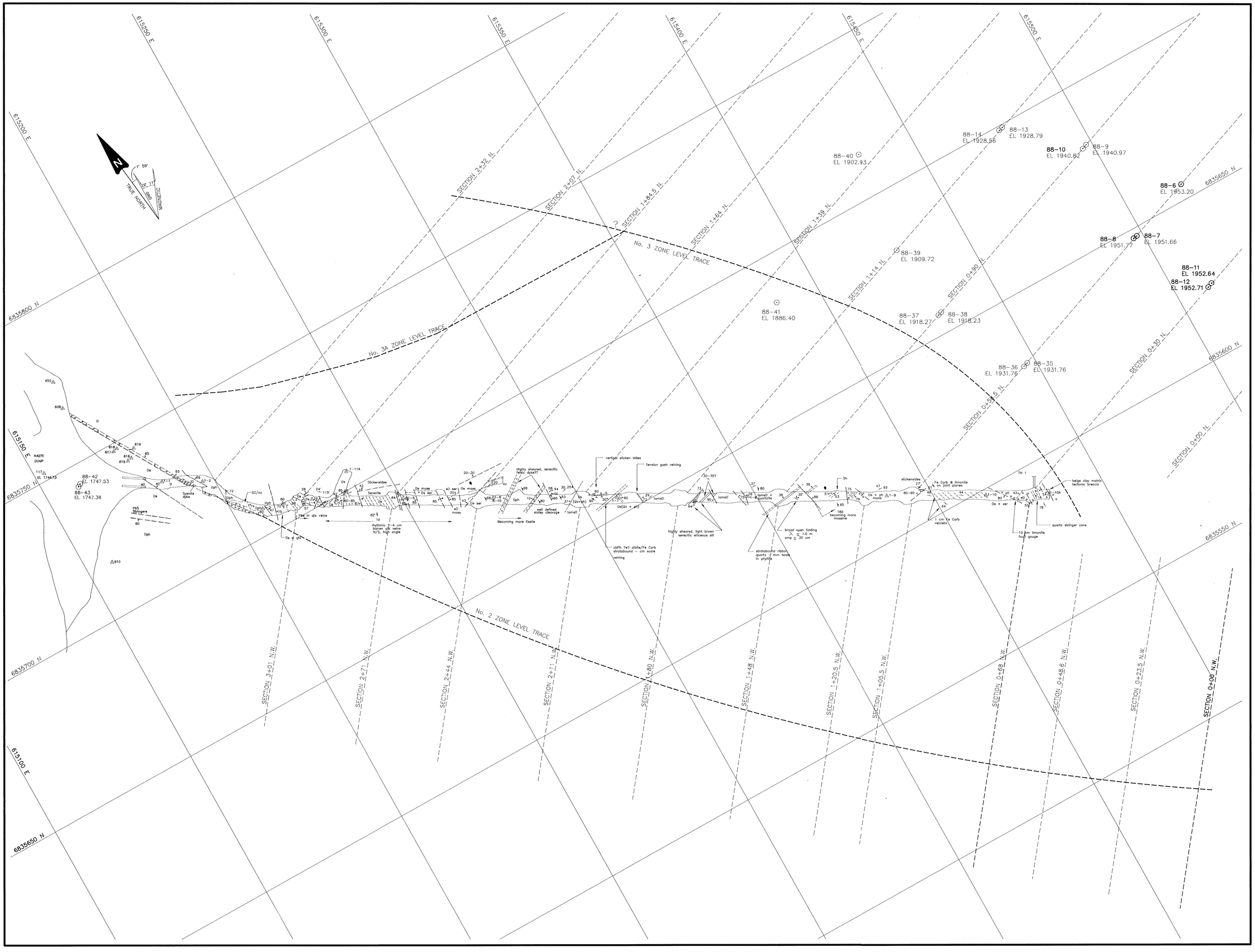
YUKON MINERALS — PERREX J.V.

KETZA PROJECT
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N, LONG 137° 53' W, NTS 105 F/10

Scale 1:500

1747 LEVEL PLAN
UNDERGROUND SURVEY

DATE: DECEMBER 28/1988 | TECH. R.H.
DRAWN BY: POLARIS CONSULTING, R.H.
DWG. No. BU-S1



REVISIONS

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Da(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

⊙ Diamond drill hole collar
△ Survey station

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:500

METRES 0 2 4 6 8 10 20 30 40 50 60 METRES
FEET 0 10 20 30 40 50 100 150 200 FEET

1747 LEVEL PLAN
GEOLOGY

DATE: 88-12-03 | TECH.: B.P.F./R.H. | DWG. No. BU-G1

DRAWN BY: NEW CONCEPT DRAFTING LTD.

615250 E
615300 E
615350 E
615400 E
615450 E
615500 E
615200 E
6835850 N
6835800 N
6835750 N
6835700 N
6835650 N
6835600 N
6835550 N
6835500 N

N
1° 59'
21.11
1985
TRUE NORTH
MAGNETIC

SECTION 2+32 N.
SECTION 2+07 N.
SECTION 1+84.5 N.
SECTION 1+64 N.
SECTION 1+39 N.
SECTION 1+14 N.
SECTION 0+90 N.
SECTION 0+58.5 N.
SECTION 0+30 N.
SECTION 0+00 N.
No. 3 ZONE LEVEL TRACE
No. 3A ZONE LEVEL TRACE
No. 2 ZONE LEVEL TRACE

88-40 EL 1902.93
88-14 EL 1928.56
88-13 EL 1928.79
88-10 EL 1940.82
88-9 EL 1940.97
88-6 EL 1853.20
88-8 EL 1951.77
88-7 EL 1951.66
88-39 EL 1909.72
88-11 EL 1952.64
88-12 EL 1952.71
88-41 EL 1886.40
88-37 EL 1918.27
88-38 EL 1918.23
88-36 EL 1931.76
88-35 EL 1931.76

WASTE DUMP
622 609 619 618 617 616 615 610
117 EL 1746.73
88-42 EL 1747.53
88-43 EL 1747.38

1-1 1-2 1-3 1-4 1-11 1-11A 1-5 1-6 1-7 1-8 1-9 1-10 1-10A

0.01 0.02 0.04 8 1.40 78207 | 0.13 0.28 0.21 22 1.40 78206
0.03 0.07 0.08 <5 1.40 78209 | 0.21 0.60 0.17 7 1.40 78208
0.09 0.18 0.42 19 1.40 78211 | 0.01 0.04 0.05 <5 1.40 78210
0.11 0.57 0.03 11 1.40 78213 | 0.02 0.05 0.03 <5 1.40 78212
<0.01 0.02 0.02 8 1.4 78214
0.66 1.47 1.71 25 1.0 78215
0.16 0.21 2.08 25 1.0 78217 | 0.15 0.27 0.47 15 1.0 78216
6.14 18.35 5.90 45 GRAB 81255 | 0.08 0.15 0.06 6 0.05 81256
0.33 0.04 0.02 65 0.07 78218
0.16 0.03 0.02 52 0.08 78219 (Back Sample)
0.16 0.03 0.01 46 0.15 78220
0.01 <0.01 <0.01 <5 0.06 78221
<0.01 <0.01 <0.01 <5 1.22 81240
<0.01 <0.01 <0.01 <5 2.44 81239
0.06 0.18 0.07 18 0.70 81254 | <0.01 <0.01 0.01 <5 0.70 81253
<0.01 <0.01 0.03 <5 0.70 81251 | 0.01 <0.01 0.01 <5 0.80 81252

LEGEND

TO ACCOMPANY REPORT BY E.P. FOWLER, P. GEOL DATED 31 DECEMBER 1988

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE: SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (ppb) | Mixture Applicable | CORE RECOVERY LENGTH %

AVERAGE GRADE: HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

⊙ Diamond drill hole collar
△ Survey station

inches 0 1
centimetres 0 1 2
This reference scale for checking purposes only. If original image is not 1:500 as in the image, therefore adjust the scale to suit reference line this original size.

REVISIONS

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:500
METRES 0 2 4 6 8 10 20 30 40 50 60 METRES
FEET 0 10 20 30 40 50 100 150 200 FEET

1747 LEVEL PLAN ASSAY

DATE: 88-12-21 | TECH.: B.P.F. / R.H. | DWG. No. BU-A1
DRAWN BY: NEW CONCEPT DRAFTING LTD.

835900 N

615400 E

615450 E

615500 E

615550 E

615600 E

835850 N

835800 N

835750 N

SEE DWG. No. BP-G8

DELTA TRENCH

#542
EL. 1890.93

2+44

2+39

2+21

2+01

1+88

1+78

Ph,St

D

?

REFERENCE LINE
Az=340°00'00"

REFERENCE LINE
Az=328°00'00"

No. 3 ZONE

SECTION 1+61 N

DWG No:
35-05

1+72

1+50

ZEUS ZONE

1° 58'

TRUE NORTH

GRID

MAGNETIC

SEE DWG. No. BP-G2

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches 0 1
centimetres 0 1 2

The reference scale bar has been added to the original image. It will change if the image is not on the sheet. Therefore it can be used as a reference only for the original size.

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
Py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dd(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
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- Damph Amphipora +/- stromatoporoid dolostone
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- uEOslv Grey - buff calcareous phyllite; thinly laminated
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EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

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All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & M.I. | DWG. No. BP-G1

DRAWN BY: POLARIS CONSULTING, R.H.

835900 N

615400 E

615450 E

615500 E

615550 E

615600 E

835850 N

835800 N

835750 N

SEE DWG. No. BP-A8

SEE DWG. No. BP-A2

DELTA TRENCH

△#542
EL 1890.93

2+44

78030

2+39

78029

2+21

77429

2+01

77446

1+88

77436

1+78

77426

1+72

1+50

REFERENCE LINE
Az=340°00'00"

REFERENCE LINE
Az=325°00'00"

SECTION 1+61 N

DWG No. 3S-A5

ZEUS ZONE

No. 3 ZONE

AVERAGE GRADE

HORIZ. WIDTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
12.65m	2.75	3.97	4.39	0.003	0.69	0.90

AVERAGE GRADE

HORIZ. WIDTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
3.35m	0.91	1.07	0.53	<0.001	0.85	2.02

1° 59'

59° 41'

TRUE NORTH

GRID

MAGNETIC

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE Nos. | Ag (oz./ton) | Pb % | Zn % | Cu (ppm) Where Applicable | Au Ppb | CORE RECOVERY LENGTH %

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches
centimetres

This reference scale bar has been added to the original image. It will be accurate for plots at the stage. Standard sizes of paper. Use for reference for the original size.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE ASSAY PLAN

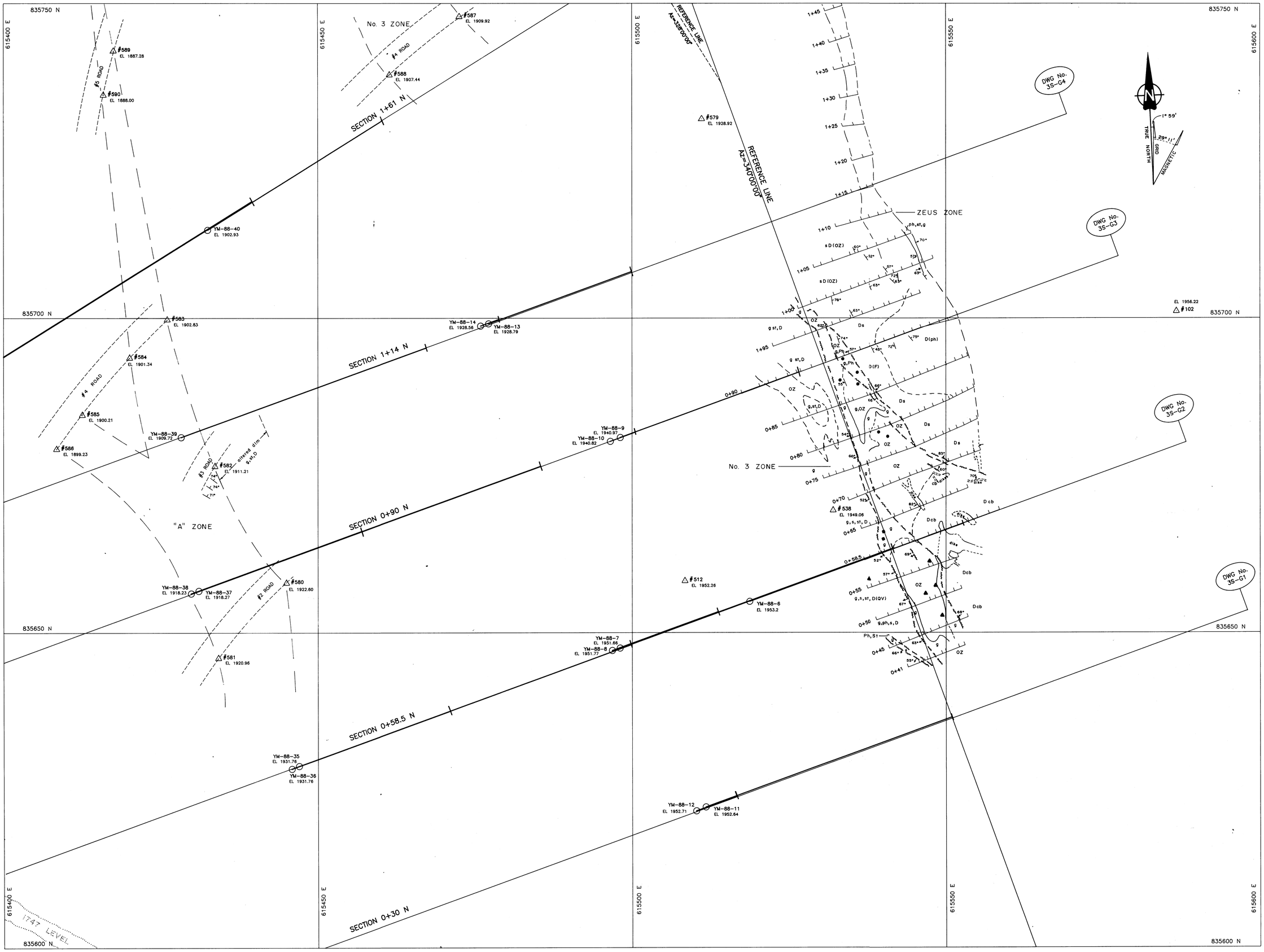
DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-A1

DRAWN BY: INFOMAP SERVICES INC.

SEE DWG. No. BP-G1

SEE DWG. No. BP-G7

SEE DWG. No. BP-G3



SEE DWG. No. BP-G3

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

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(F)	FOSSILIFEROUS
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a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

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py PYRITE
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OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
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PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

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- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
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(modified after Templeman-Kluit, 1977)

NOTE:
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All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & M.I. | DWG. No. BP-G2
DRAWN BY: POLARIS CONSULTING, R.H.

SEE DWG. No. BP-A1

SEE DWG. No. BP-A7

SEE DWG. No. BP-A3

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

835750 N | 835700 N | 835650 N | 835600 N

615400 E | 615450 E | 615500 E | 615550 E | 615600 E

#589 EL 1887.28
#590 EL 1888.00
#587 EL 1909.92
#588 EL 1907.44
#583 EL 1902.83
#584 EL 1901.34
#585 EL 1900.21
#586 EL 1899.23
#582 EL 1911.21
#579 EL 1928.92
#580 EL 1922.60
#581 EL 1920.96
#102 EL 1956.22
#538 EL 1949.06

YM-88-40 EL 1902.93
YM-88-39 EL 1909.72
YM-88-38 EL 1918.23
YM-88-37 EL 1918.27
YM-88-14 EL 1928.56
YM-88-13 EL 1928.79
YM-88-9 EL 1940.97
YM-88-10 EL 1940.82
YM-88-6 EL 1953.2
YM-88-7 EL 1951.66
YM-88-8 EL 1951.77
YM-88-35 EL 1931.76
YM-88-36 EL 1931.76
YM-88-12 EL 1952.71
YM-88-11 EL 1952.64

SECTION 1+61 N
SECTION 1+14 N
SECTION 0+90 N
SECTION 0+58.5 N
SECTION 0+30 N

REFERENCE LINE
AZ=328°00'00"
REFERENCE LINE
AZ=148°00'00"

#4 ROAD
#5 ROAD
#3 ROAD
#2 ROAD
"A" ZONE
1747 LEVEL

1+45 | 1+40 | 1+35 | 1+30 | 1+25 | 1+20 | 1+15 | 1+10 | 1+05 | 1+00 | 0+95 | 0+90 | 0+85 | 0+80 | 0+75 | 0+70 | 0+65 | 0+58.5 | 0+55 | 0+50 | 0+45 | 0+41

DWG No. 3S-A4
DWG No. 3S-A3
DWG No. 3S-A1

NOTE: * Samples Taken At East End Of Sample Line ZEUS ZONE

ZEUS SURFACE AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
78.40	4.37	3.70	4.85	2.88	0.004	0.76	1.68

ZEUS-NORTH AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
18.80	2.17	5.37	7.44	3.27	0.005	0.72	2.28

ZEUS-SOUTH AVERAGE GRADE

	LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
	45.90	5.73	3.97	5.14	2.86	0.004	0.77	1.80
BULK SAMPLE - No. 3 ZONE - LINE 0+80	6.95	3.60	5.20	3.44	0.014	0.69	1.51	

No.3 ZONE SURFACE AVERAGE GRADE

	LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
	51.00	5.77	3.31	3.52	3.21	0.010	0.94	1.11
HIGH GRADE	51.00	2.67	5.98	6.45	3.60	0.013	0.93	1.79

N | 1° 59' | TRUE NORTH | DMD | MAGNETIC

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE: SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | Cd (ppm) Where Applicable | CORE RECOVERY (LENGTH %)

AVERAGE GRADE: HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches 0 1 2
centimetres 0 1 2

The reference scale bar has been added to the original plan to enable it to be plotted at the same size as the image, therefore the scale bar may not be accurate for the original size.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-A2
DRAWN BY: INFOMAP SERVICES INC.

SEE DWG. No. BP–A2

835600 N

615400 E

615450 E

615500 E

615550 E

615600 E

835550 N

835500 N

835450 N

SEE DWG. No. BP–A6

SEE DWG. No. BP–A5

SEE DWG. No. BP–A4

1747 LEVEL

SECTION 0+30 N

DWG No. 3S–A1

"A" ZONE

"B" ZONE

△ #532
EL 1951.36

△ #112
EL 1951.38

△ #544
EL 1949.637

△ #543
EL 1938.24

SECTION 0+48.6 NW

DWG No. 2S–A2

SECTION 0+23.5NW

DWG No. 2S–A1

SECTION 0+00NW

YM88–20
EL 1913.16

LINE 12

EL 1909.04
△ #539

1° 09'

TRUE NORTH

MAGNETIC

LEGEND

DRILL HOLE DATA

YM–88–5 (DRILL HOLE No.)
–60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
					(where Applicable)	

AVERAGE GRADE

HORIZ. WIDTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

REVISIONS

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP–A3
DRAWN BY: INFOMAP SERVICES INC.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

SEE DWG. No. BP-A3

835450 N

615400 E

615450 E

615500 E

615550 E

615600 E

LINE 12

77376

No.2 ZONE

#541
EL 1897.72

LINE 13

No. 2

AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
42.50	1.05	2.98	4.27	4.65	0.010	0.70	0.92

69-2-7
EL 1896.4

835400 N

SEE DWG. No. BP-A5

#540
EL 1884.20

69-2-8
EL 1879.00

LINE 14

REFERENCE LINE
Az=305°00'00"

835350 N

SEE DWG. No. BP-A5

835300 N

615400 E

615450 E

615500 E

615550 E

615600 E

TRUE NORTH
1° 59'
GRID
MAGNETIC

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-80° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (ppb) | CORE RECOVERY % | CORE LENGTH Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTES:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

D.D.H.'S 69-2-1 TO 69-2-8 WERE DRILLED JULY - AUGUST, 1969 BY DOLMAGE, CAMPBELL & ASSOCIATES ON BEHALF OF CANOL MINES LTD.

inches
centimetres
This reference scale bar should measure 1 inch or 2.5 centimetres. If not, scale of the same ratio should be used in lieu of reference for this original.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

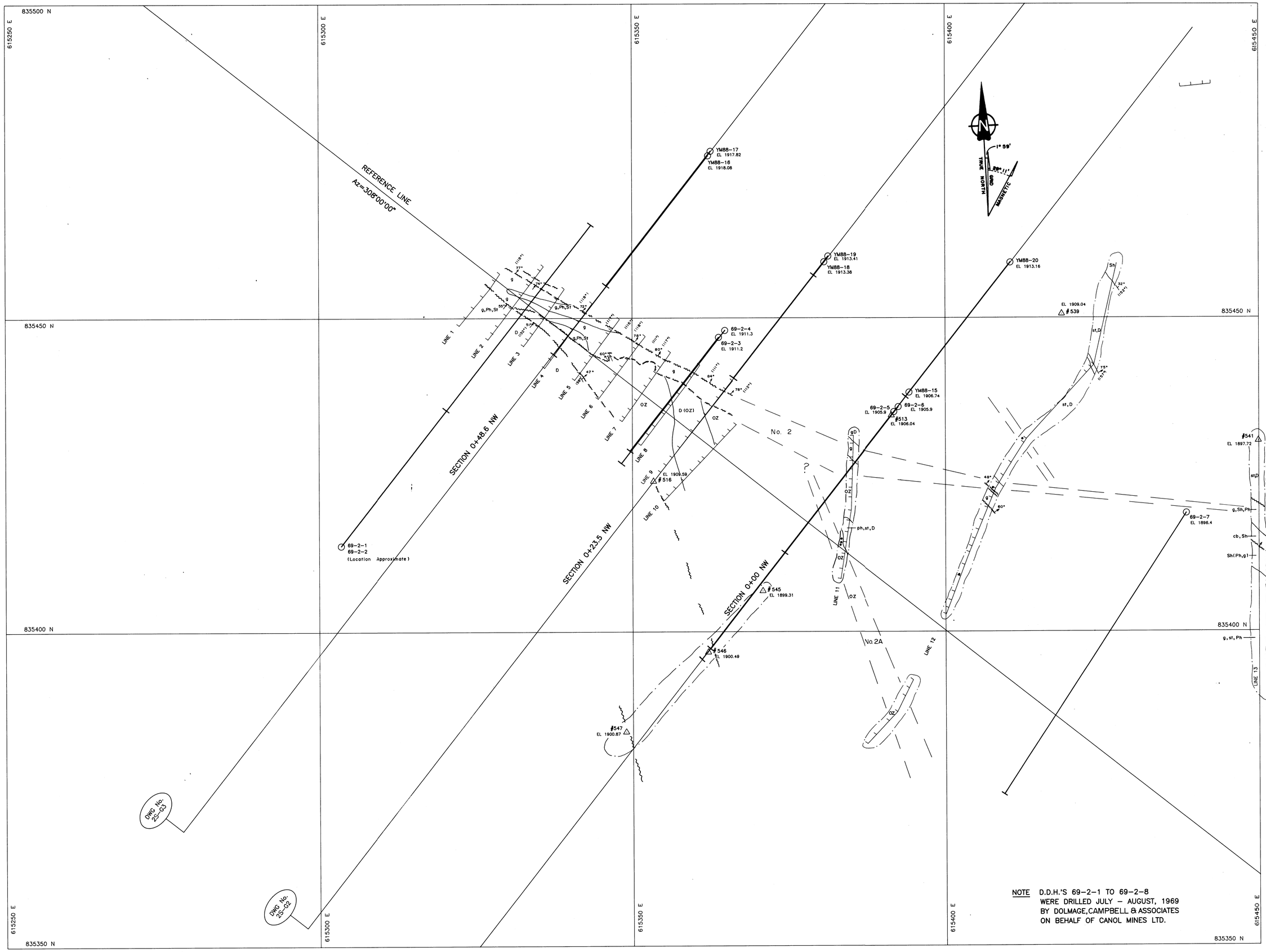
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-A4
DRAWN BY: INFOMAP SERVICES INC.

SEE DWG. No. BP-G6



NOTE D.D.H.'S 69-2-1 TO 69-2-8
WERE DRILLED JULY – AUGUST, 1969
BY DOLMAGE, CAMPBELL & ASSOCIATES
ON BEHALF OF CANOL MINES LTD.

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(f)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/– SPHALERITE +/– TETRAHEDRITE IN BRECCIA
- ● GALENA +/– SPHALERITE +/– TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/– SPHALERITE +/– TETRAHEDRITE – MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/– tetrahedrite +/– sphalerite +/– chalcopyrite +/– pyrite +/– scorodite +/– malachite +/– azurite +/– quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/– massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/– sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/– galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Da(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/– stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereictic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsi Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey – buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcal Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 2 ZONE SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & M.I. | DWG. No. BP-G5
DRAWN BY: POLARIS CONSULTING, R.H.

SEE DWG. No. BP-A6

835500 N

615250 E

615300 E

615350 E

615400 E

615450 E

835450 N

835400 N

835350 N

REFERENCE LINE
Az=305°00'00"

SECTION 0+48.6 NW

SECTION 0+23.5 NW

SECTION 0+00 NW

"B" ZONE

No.2 ZONE

No.2-A VEIN

YM88-17
EL 1917.82

YM88-16
EL 1918.08

YM88-19
EL 1913.41

YM88-18
EL 1913.38

YM88-20
EL 1913.16

YM88-15
EL 1906.74

69-2-4
EL 1911.3

69-2-3
EL 1911.2

69-2-5
EL 1905.9

69-2-6
EL 1905.9

69-2-7
EL 1896.4

69-2-1

69-2-2

#513
EL 1906.04

#516
EL 1909.59

#539
EL 1909.04

#541
EL 1897.72

#545
EL 1899.31

#546
EL 1900.49

#547
EL 1900.87

LINE 1
LINE 2
LINE 3
LINE 4
LINE 5
LINE 6
LINE 7
LINE 8
LINE 9
LINE 10
LINE 11
LINE 12

AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
25.00	5.05	2.62	3.72	2.69	0.010	0.70	1.38
23.00	3.05	1.50	2.22	4.09	0.008	0.68	0.54
42.50	1.05	2.98	4.27	4.65	0.010	0.70	0.92
42.00	1.53	2.00	3.28	1.93	0.007	0.61	1.71

AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
3.20	7.35	4.13	6.81	2.85	0.013	0.61	2.31
BULK SAMPLE	9.15	3.38	6.00	2.26	0.018	0.56	2.64

AVERAGE GRADE

LENGTH (m)	WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
5.00	2.05	2.62	3.72	2.69	0.010	0.70	1.38

78156

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

SEE DWG. No. BP-A4

DWG No. 25-A3

DWG No. 25-A2

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (ppb) Where Applicable | DORE LENGTH | DORE RECOVERY %

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTES:
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D.D.H.'S 69-2-1 TO 69-2-8 WERE DRILLED JULY - AUGUST, 1969 BY DOLMAGE, CAMPBELL & ASSOCIATES ON BEHALF OF CANOL MINES LTD.

inches / centimetres — This reference scale for measuring distances on original images. If not exactly 1 inch or 2.5 cm as the image, therefore, has been reduced or enlarged.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 2 ZONE SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-A5

DRAWN BY: INFOMAP SERVICES INC.

SEE DWG. No. BP–G7

835600 N

615200 E

615250 E

615300 E

615350 E

615400 E

835600 N

1° 09'

TRUE NORTH

GRID

MAGNETIC

835550 N

835550 N

835500 N

835500 N

SEE DWG. No. BP–G3

SEE DWG. No. BP–G5

SEE DWG. No. BP–G5

REFERENCE LINE
Az=308°00'00"

SECTION 0+48.6 NW

SECTION 0+23.5 NW

YM88–17
EL 1917.82

YM88–16
EL 1918.08

YM88–19
EL 1913.41

YM88–18
EL 1913.38

LINE 1 (16m)

LINE 2 (65–2.2)

LINE 3 (16m)

LINE 4

77°

55°

75°

g

g,Ph,Sr

g,Ph,Sr

615200 E

615250 E

615300 E

615350 E

615400 E

835450 N

835450 N

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

LEGEND

REVISIONS

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches 0 1

centimetres 0 1 2

This reference scale for hardcopy plots of the original image. It will not be accurate for plots of an image, therefore the dimensions of the image should be referred to this original size.

MINERALIZATION

- ▲ GALENA +/– SPHALERITE +/– TETRAHEDRITE IN BRECCIA
- ● GALENA +/– SPHALERITE +/– TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/– SPHALERITE +/– TETRAHEDRITE – MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/– tetrahedrite +/– sphalerite +/– chalcopyrite +/– pyrite +/– scorodite +/– malachite +/– azurite +/– quartz/iron carbonate gangue
OZ OXIDE ZONE; gauge/breccia zone with >30% limonite matrix +/– massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/– sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/– galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35 FOLIATION & ANGLE TO CORE AXIS
- 35 BEDDING & ANGLE TO CORE AXIS
- JOINTING
- — — GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

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SILURIAN, EARLY AND MIDDLE DEVONIAN
- Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
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- uEDslv Grey – buff calcareous phyllite; thinly laminated
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EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman–Kluit, 1977)

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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & M.I. | DWG. No. BP–G6

DRAWN BY: POLARIS CONSULTING, R.H.

SEE DWG. No. BP–G8

SEE DWG. No. BP–G10

SEE DWG. No. BP–G2

SEE DWG. No. BP–G6

835750 N

835700 N

835650 N

835600 N

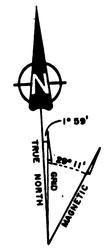
615200 E

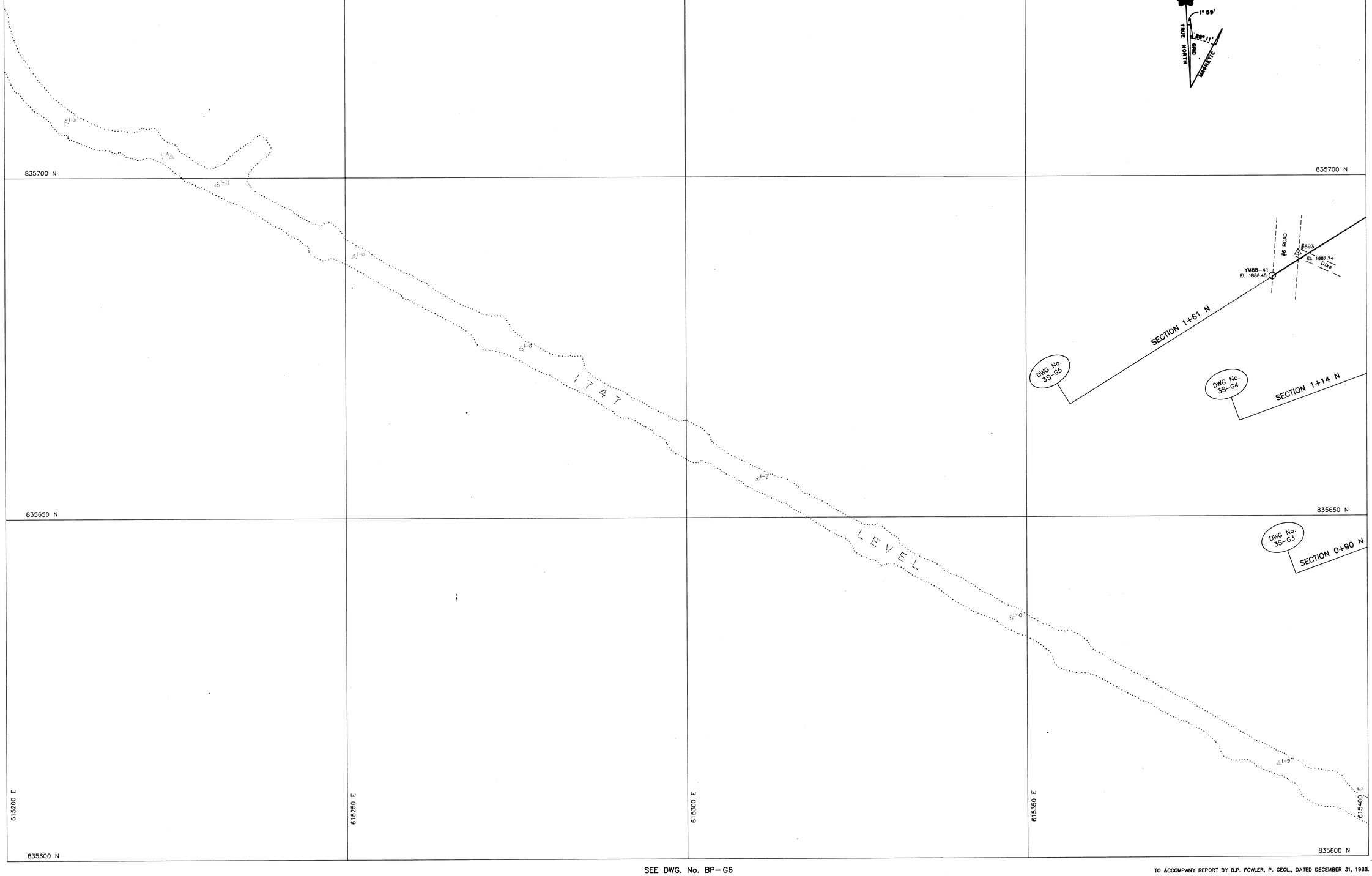
615250 E

615300 E

615350 E

615400 E





TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
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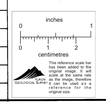

This reference scale has been measured on the original image. It will change if this image is on the image. therefore Golder Assoc. it can be used as a reference for this original size

MINERALIZATION

- ▲ GALENA +/– SPHALERITE +/– TETRAHEDRITE IN BRECCIA
- ● GALENA +/– SPHALERITE +/– TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/– SPHALERITE +/– TETRAHEDRITE – MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/– tetrahedrite +/– sphalerite +/– chalcopyrite +/– pyrite +/– scorodite +/– malachite +/– azurite +/– quartz/iron carbonate gangue
OZ OXIDE ZONE; gauge/breccia zone with >30% limonite matrix +/– massive clotted galena; sphalerite, pyrite
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PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
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SILURIAN, EARLY AND MIDDLE DEVONIAN
- Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
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LATE CAMBRIAN AND EARLY CAMBRIAN
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- uEOb Dark green mafic flow or sill

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(modified after Templeman–Kluit, 1977)

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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP–G7

DRAWN BY: POLARIS CONSULTING , R.H.

835900 N

615200 E | 615250 E | 615300 E | 615350 E | 615400 E

835850 N

835800 N

835750 N

SEE DWG. No. BP-G9

SEE DWG. No. BP-G1

DWG No. 3S-G6

SECTION 3+30 N

No. 3A

No. 3A

ROAD #12

ROAD #11

ROAD #10

ROAD #9

ROAD #8

ROAD #7

ROAD #6

605 EL 1785.51

603 EL 1802.56

604 EL 1802.82

601 EL 1823.58

602 EL 1824.04

600 EL 1836.94

599 EL 1837.55

597 EL 1853.43

596 EL 1848.84

598 EL 1848.30

595 EL 1861.38

592 EL 1869.89

591 EL 1869.64

?

DELTA TRENCH

Sh

Sh ? Shaly dim

Ph,St

D

2+80

2+54

2+49

2+44

2+39

1° 55'

TRUE NORTH

GRID

MAGNETIC

SEE DWG. No. BP-G7

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
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- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED

lam LAMINATED

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YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & M.I. | DWG. No. BP-G8

DRAWN BY: POLARIS CONSULTING, R.H.

835900 N

615200 E

615250 E

615300 E

615350 E

615400 E

835850 N

SEE DWG. No. BP-A9

SEE DWG. No. BP-A1

1° 59'

TRUE NORTH

MAGNETIC

DWG No. 35-A6

DELTA TRENCH

AVERAGE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
3.15	5.75	10.22	1.71	0.003	0.56	5.98

AVERAGE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
9.85	1.00	1.06	1.62	<0.001	0.94	0.65

AVERAGE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
4.85	4.42	8.04	3.32	0.003	0.73	1.82

2+60

2+54

2+49

2+44

2+39

835800 N

597 EL 1853.43

SECTION 3+30 N

592 EL 1869.89

595 EL 1861.38

591 EL 1869.64

596 EL 1848.84

601 EL 1823.58

600 EL 1836.94

603 EL 1802.56

602 EL 1824.04

599 EL 1837.55

598 EL 1848.30

604 EL 1802.82

605 EL 1785.51

No. 3A

No. 3A

#12 ROAD

#11 ROAD

#10 ROAD

#9 ROAD

#8 ROAD

#7 ROAD

#6 ROAD

?

835750 N

SEE DWG. No. BP-A7

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | CORE RECOVERY LENGTH %

Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches
centimetres

This reference scale for hard copies is valid for original image. If any reproduction is made as the image, therefore, it is not valid for scale and signature.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-A8

DRAWN BY: INFOMAP SERVICES INC.

835900 N

615000 E

615050 E

615100 E

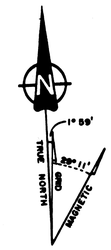
615150 E

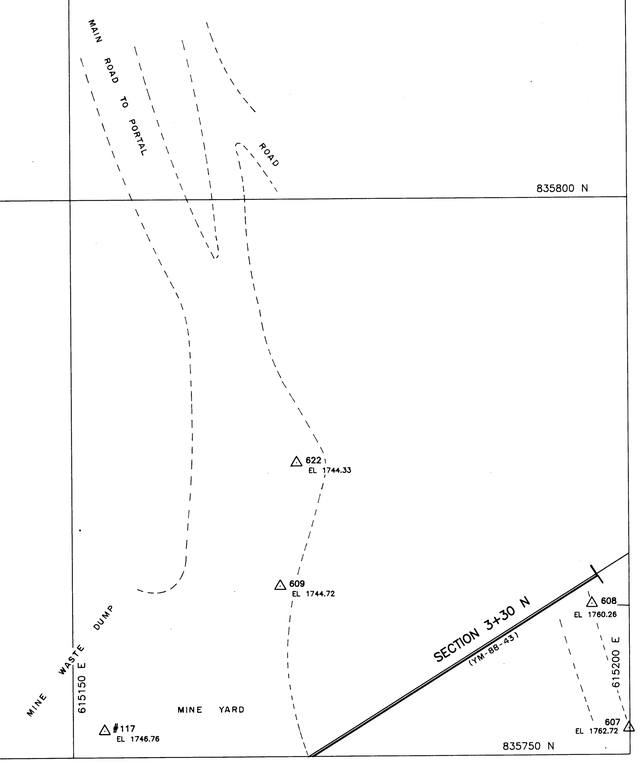
615200 E

835850 N

835800 N

835750 N





SEE DWG. No. BP-G8

SEE DWG. No. BP-G10

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches / centimetres

This reference scale bar has been added to the original drawing. The scale at the same ratio when plotted or copied, can be used as a reference for the original size.

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gauge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsi Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
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YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

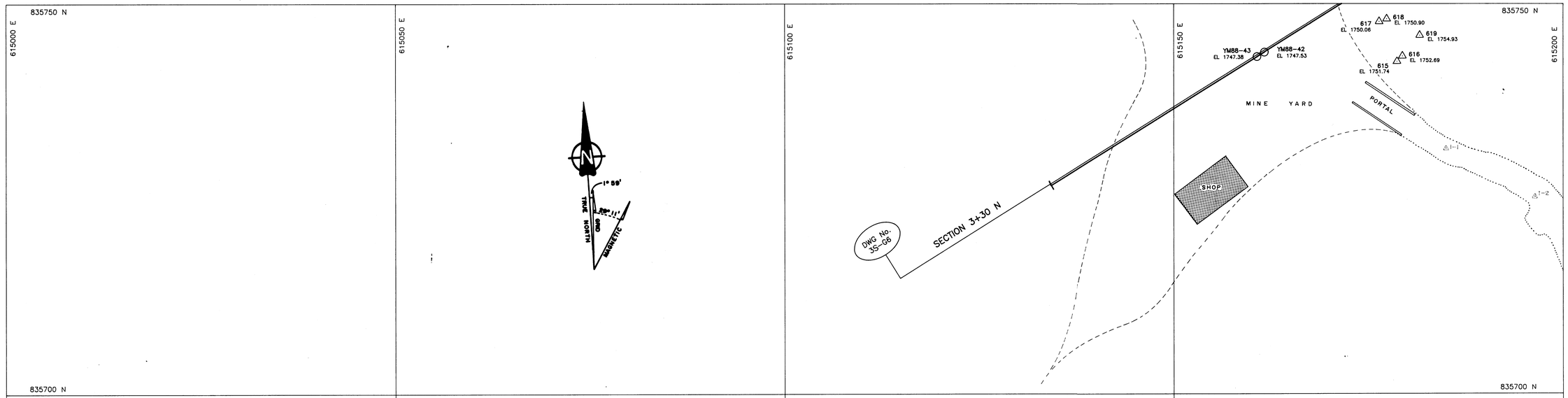
METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE GEOLOGY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-G9

DRAWN BY: INFOMAP SERVICES INC.

SEE DWG. No. BP-G9



SEE DWG. No. BP-G7

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches 0 1 — centimetres 0 1 2

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MINERALIZATION

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- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
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PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 30 FOLIATION & ANGLE TO CORE AXIS
- 35 BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- DS(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/- stromatoporoid dolostone
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EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

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YUKON MINERALS - PERREX J.V.

KETZA PROJECT

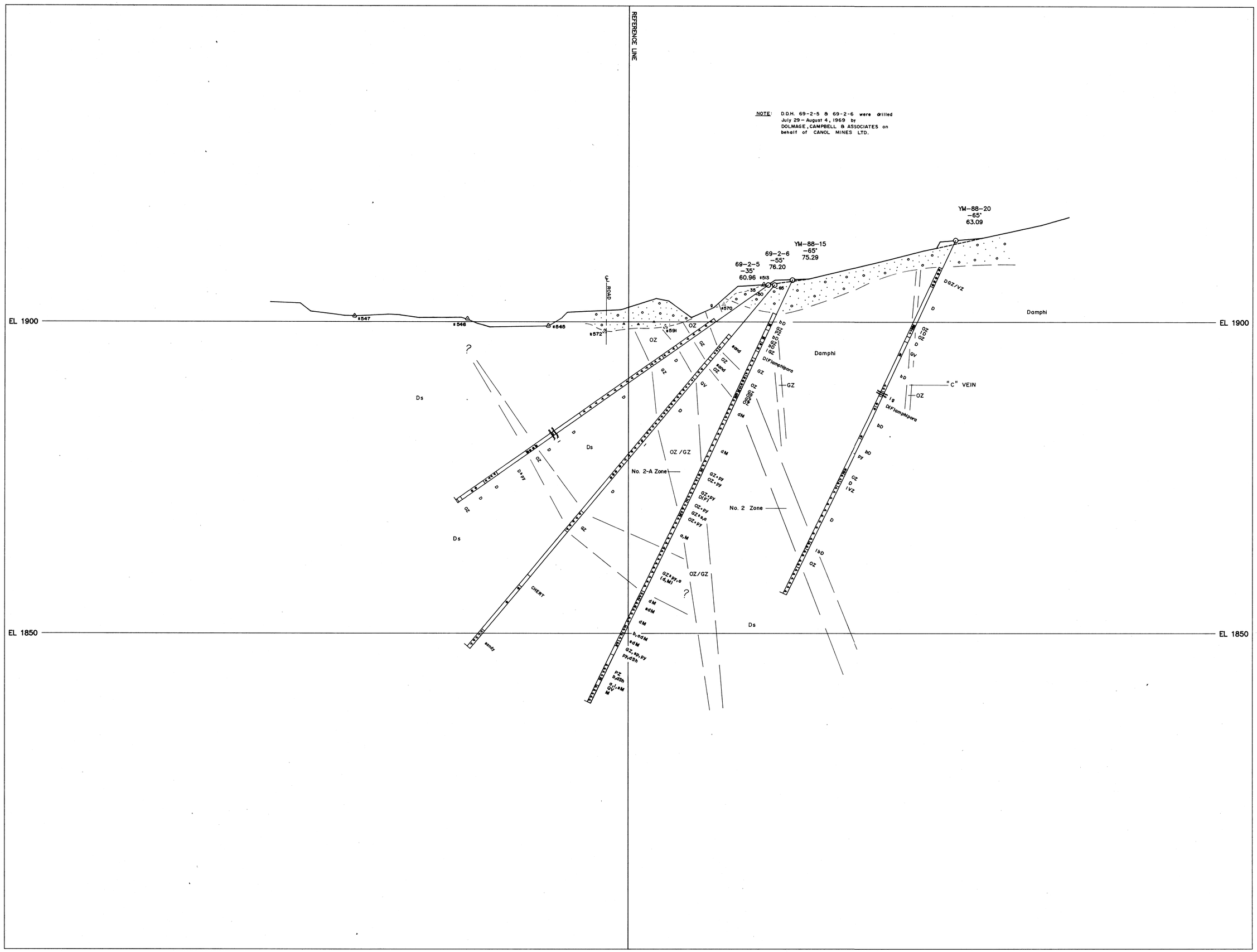
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

SURFACE ASSAY PLAN

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. BP-G10
DRAWN BY: INFOMAP SERVICES INC.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
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Qz	QUARTZITE/ARENITE
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S	SYENITE

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- JOINTING
- —·— GEOLOGICAL CONTACT – OBSERVED, INFERRED
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 30 50 75 100 FEET

No. 2 ZONE
VERTICAL CROSS SECTION – 0+00 NW GEOLOGY
LOOKING N 52° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F | DWG. No. 2S-61
DRAWN BY: POLARIS CONSULTING, J.B.

REFERENCE LINE

NOTE: D.D.H. 69-2-5 & 69-2-6 were drilled July 29 – August 4, 1969 by DOLMAGE, CAMPBELL & ASSOCIATES on behalf of CANOL MINES LTD.

EL 1900

EL 1850

Sample Line 11

AVERAGE SURFACE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
4.90	0.85	1.14	3.16	0.007	0.75	0.36

0.13	2.10	0.27	0.02	0.04	0.13	0.02	0.19	0.27	0.37	0.98	3.00	0.36	0.11
0.28	3.50	0.50	0.04	0.08	0.23	0.03	0.25	0.32	0.30	1.41	4.36	0.28	0.11
0.27	2.50	0.30	0.30	0.28	0.30	0.14	1.04	3.98	3.81	1.45	3.34	0.75	0.11
19	186	45	3	10	68	41	32	75	137	471	222	71	28
1.75	2.30	1.80	1.70	1.85	1.70	2.00	1.55	1.30	1.65	1.30	0.65	2.10	1.15
77345	77346	77347	77348	77349	77388	77350	77351	77352	77353	77354	77355	77356	77357

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
1.96	5.13	4.09	0.17	0.001	1.25	24.08	58.2

YM–88–20
–65°
63.09

YM–88–15
–65°
75.29

69–2–6
–50°
76.20

69–2–5
–35°
60.96

"C" VEIN

No. 2

No. 2A

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
2.11	2.11	2.76	0.37	0.042	0.76	7.46	92.9

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
3.99	1.04	1.37	4.24	0.003	0.76	0.32	88.5

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
4.01	4.58	7.25	3.99	0.015	0.63	1.82	96.5

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
7.95	1.32	2.03	2.04	0.006	0.65	1.00	95.3
7.62	1.63	2.41	0.11	0.002	0.68	21.91	89.6

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM–88–5 (DRILL HOLE No.)
–80° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE: SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY % | Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY %

LEGEND

Tr Trace
N.A. Not available

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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inches / centimetres

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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

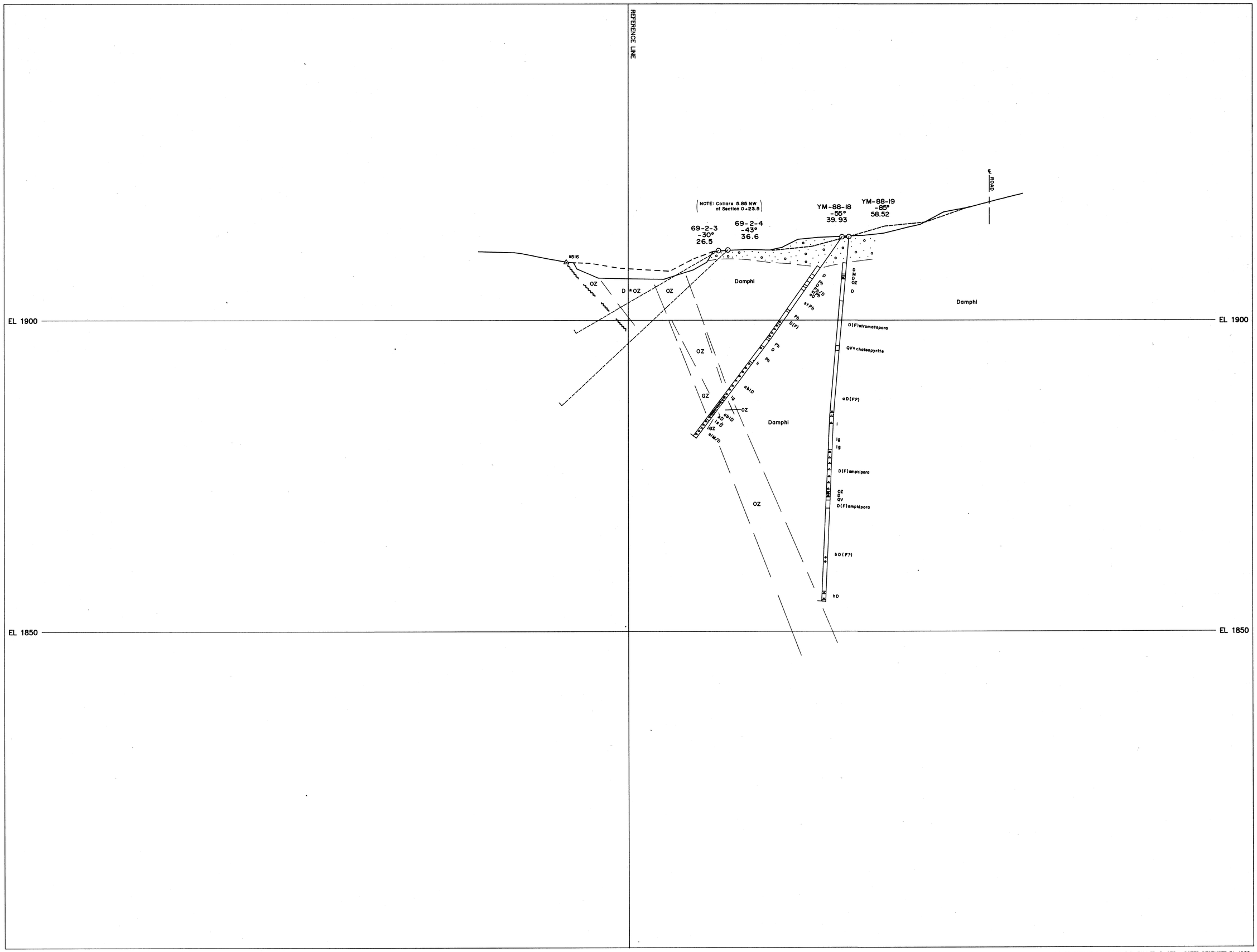
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 2 ZONE
VERTICAL CROSS SECTION – 0+00 NW ASSAY
LOOKING N 52° W

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. 2S-A1

DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

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D	DOLOSTONE
M	MUDSTONE
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b	BLEACHED
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h	HEMATITE
l	LIMONITE
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MINERALIZATION

- ▲ GALENA +/– SPHALERITE +/– TETRAHEDRITE IN BRECCIA
- ● GALENA +/– SPHALERITE +/– TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/– SPHALERITE +/– TETRAHEDRITE – MASSIVE

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VZ VEIN ZONE; massive, clotted, galena, +/– tetrahedrite +/– sphalerite +/– chalcopyrite +/– pyrite +/– scorodite +/– malachite +/– azurite +/– quartz/iron carbonate gangue
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PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- – – GEOLOGICAL CONTACT – OBSERVED, INFERRED

lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
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LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOdV Grey – buff calcareous phyllite; thinly laminated
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 2 ZONE
VERTICAL CROSS SECTION – 0+23.5 NW GEOLOGY
LOOKING N 52° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. | DWG. No. 2S-G2

DRAWN BY: POLARIS CONSULTING, J.B.

REFERENCE LINE

EL 1900

EL 1850

AVERAGE SURFACE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
5.20	4.28	6.15	2.25	0.014	0.70	2.73

Sample Line 9

0.05	0.06	0.02	0.07	0.08	2.00	0.20	1.18	3.28	8.20	0.15		
0.09	0.06	0.07	0.07	0.24	0.41	0.32	2.80	3.39	11.30	0.22		
0.55	0.28	0.24	0.30	0.36	0.77	0.40	0.82	1.13	4.87	0.33		
18	15	3	21	7	27	29	22	643	718	39		
1.55	1.80	1.90	2.00	1.40	1.75	1.85	1.75	1.85	1.80	1.40		
77323	77324	77325	77326	77327	77328	77329	77330	77331	77332	77333		

YM-88-18
-55°
39.93

YM-88-19
-85°
58.52

69-2-3
-30°
26.5

69-2-4
-43°
36.6

516

5.85 NW of SECTION L

5.85 NW of SECTION L

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
81955	<0.01	0.01	0.01	8	1.22	99.2
81956	4.92	6.70	0.03	910	0.18	88.9
81957	0.77	0.96	0.01	156	0.73	98.0
81958	0.12	0.05	0.01	37	0.75	100.0
81959	<0.01	0.01	0.03	10	0.64	100.0
81960	0.02	0.01	0.01	23	0.85	85.9
18942	0.04	0.08	0.24	17	1.40	99.0
81961	1.11	1.13	8.96	479	0.21	85.2
81962	0.14	0.12	2.62	22	0.66	93.9
81963	0.02	0.01	0.14	6	0.50	99.0
81964	0.01	0.02	0.09	8	1.27	88.2
81965	0.01	0.03	0.02	8	1.52	100.0
81966	0.04	0.09	0.02	6	1.53	97.4
81967	0.05	0.10	0.03	3	1.52	100.0

?

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
81940	0.04	0.03	0.06	3	0.26	60.3
81951	0.01	0.02	0.06	19	1.53	94.1
81952	0.01	0.05	0.06	34	1.52	96.4
81953	0.01	0.01	0.23	4	1.53	98.5
81954	0.01	0.01	0.74	3	1.52	98.4
81939	0.02	0.03	0.74	3	1.53	92.9

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
3.77	0.18	0.15	2.32	0.011	0.57	3.94	90.5

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %

Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches
centimetres

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

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

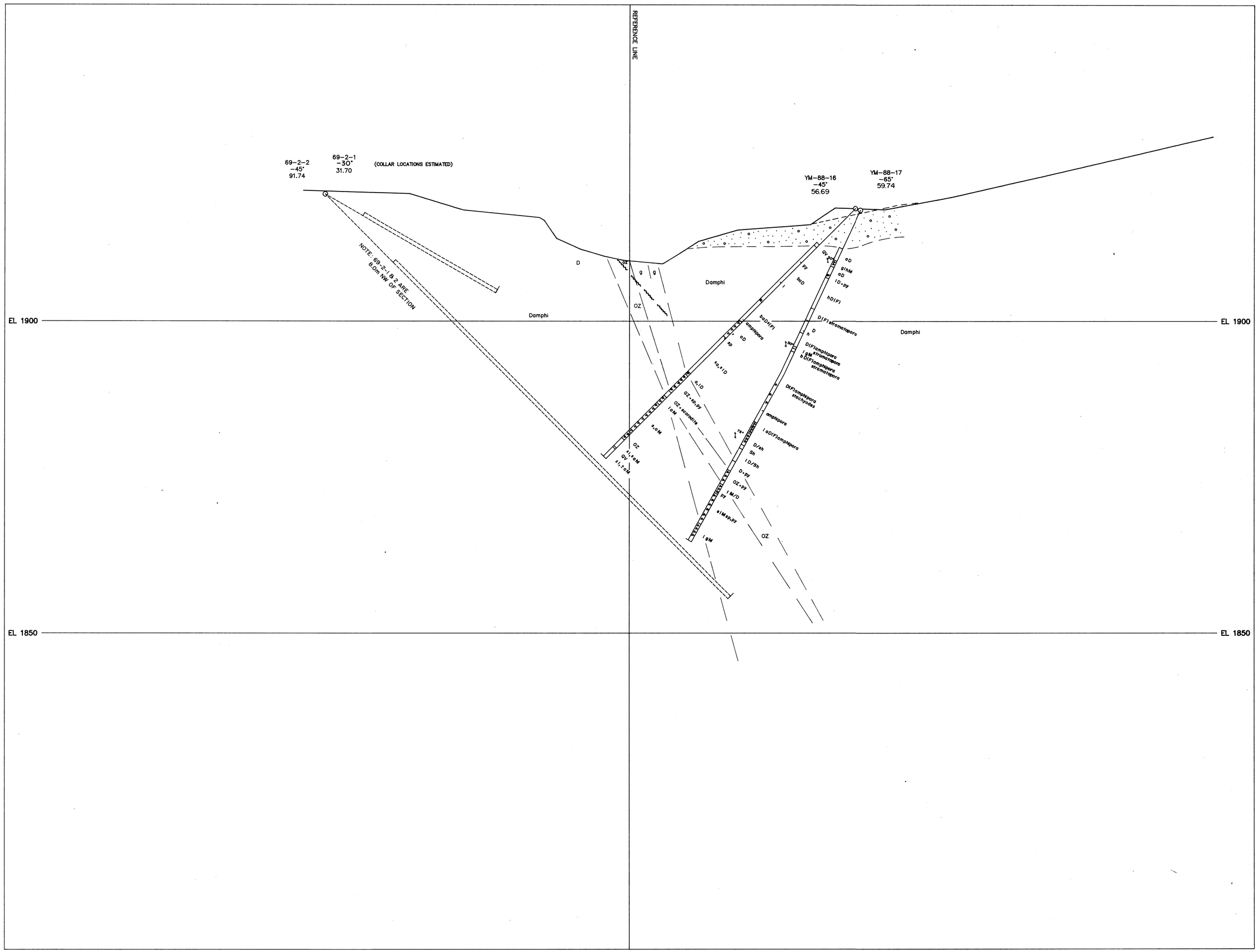
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 2 ZONE
VERTICAL CROSS SECTION - 0+23.5 NW ASSAY
LOOKING N 52° W

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. 2S-A2

DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER


REFERENCE LINE
69-2-2
-45°
91.74
69-2-1
-30°
31.70
(COLLAR LOCATIONS ESTIMATED)
YM-88-16
-45°
56.69
YM-88-17
-65°
59.74
NOTE: 69-2-1 & 2 ARE
8.0m NW OF SECTION
EL 1900
EL 1850
Damphi
D
OZ
Dph
Ds
D(F)stromatopora
D(F)amphipora
stromatopora
D(F)amphipora
stromatopora
amphipora
D(F)amphipora
D(F)amphipora
stromatopora
D(F)amphipora
stromatopora
D(F)amphipora
stromatop

REFERENCE LINE

EL 1900

EL 1850

69-2-2
-45°
91.74

69-2-1
-30°
31.70

(COLLAR LOCATIONS ESTIMATED)

YM-88-16
-45°
56.69

YM-88-17
-65°
59.74

8m. North of Section

8m. North of Section

Sample Line 4

0.12	0.31	1.84	3.73	0.79	10.50	12.30	3.37	0.21
0.05	0.08	2.01	8.88	1.33	14.70	20.00	4.74	0.15
0.41	3.15	8.39	7.87	5.21	5.23	0.34	0.00	0.18
18	124	802	141	180	764	1303	340	122
1.70	0.85	1.40	1.35	0.80	1.05	1.65	1.65	2.10
77280	77281	77282	77283	77284	77285	77286	77287	77288

AVERAGE SURFACE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
8.00	5.65	8.71	4.80	0.018	0.65	1.81

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
4.66	3.51	4.06	6.16	0.009	0.86	0.66	95.5

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
3.84	2.65	2.55	1.32	0.004	1.04	1.93	99.2

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH — metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | CORE LENGTH | RECOVERY %

Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches / centimetres

This reference scale bar has been added to the original image. It will be accurate for plots at the image therefore it is not accurate for plots referencing this sheet's original size.

YUKON MINERALS — PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

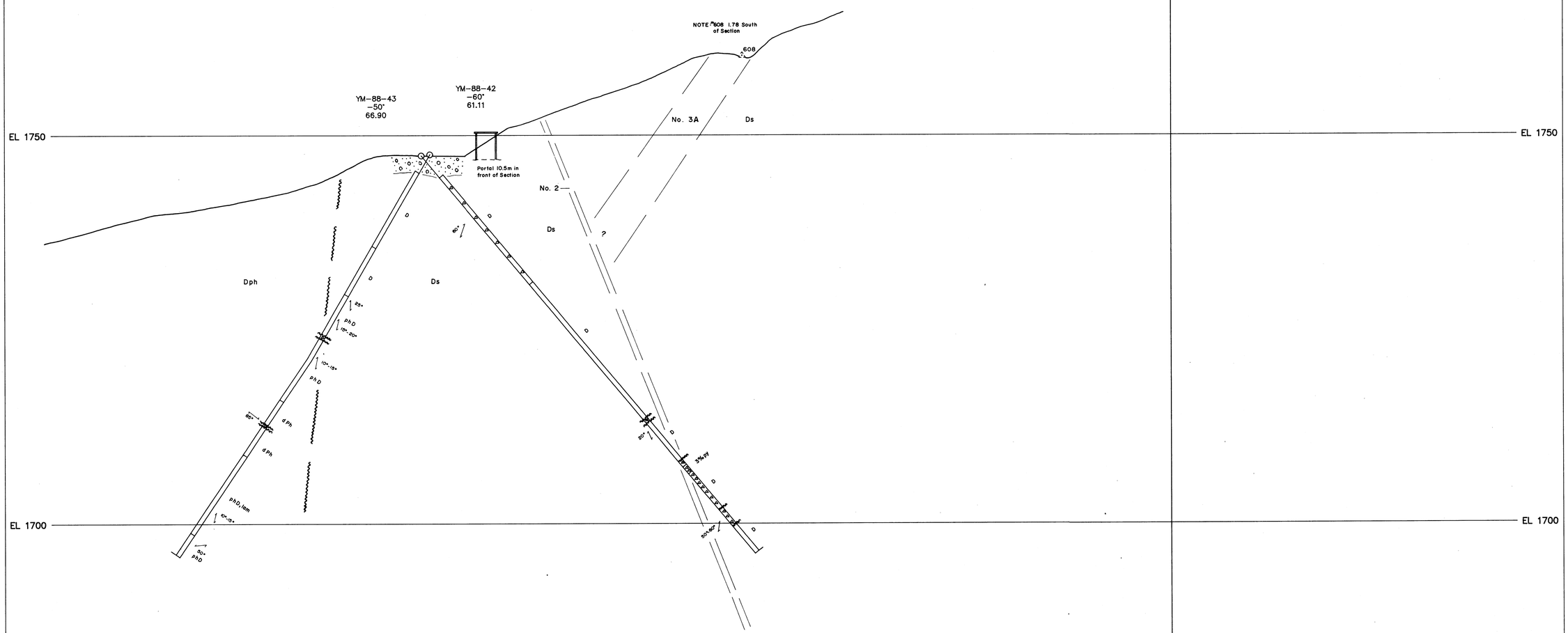
No. 2 ZONE
VERTICAL CROSS SECTION — 0+48.6 NW ASSAY
LOOKING N 52° W

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H.

DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER

DWG. No. 2S-A3

OFFSET REFERENCE LINE (200m WEST OF TRUE REFERENCE LINE)



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damphi Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEDslv Grey - buff calcareous phyllite; thinly laminated
- uECb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

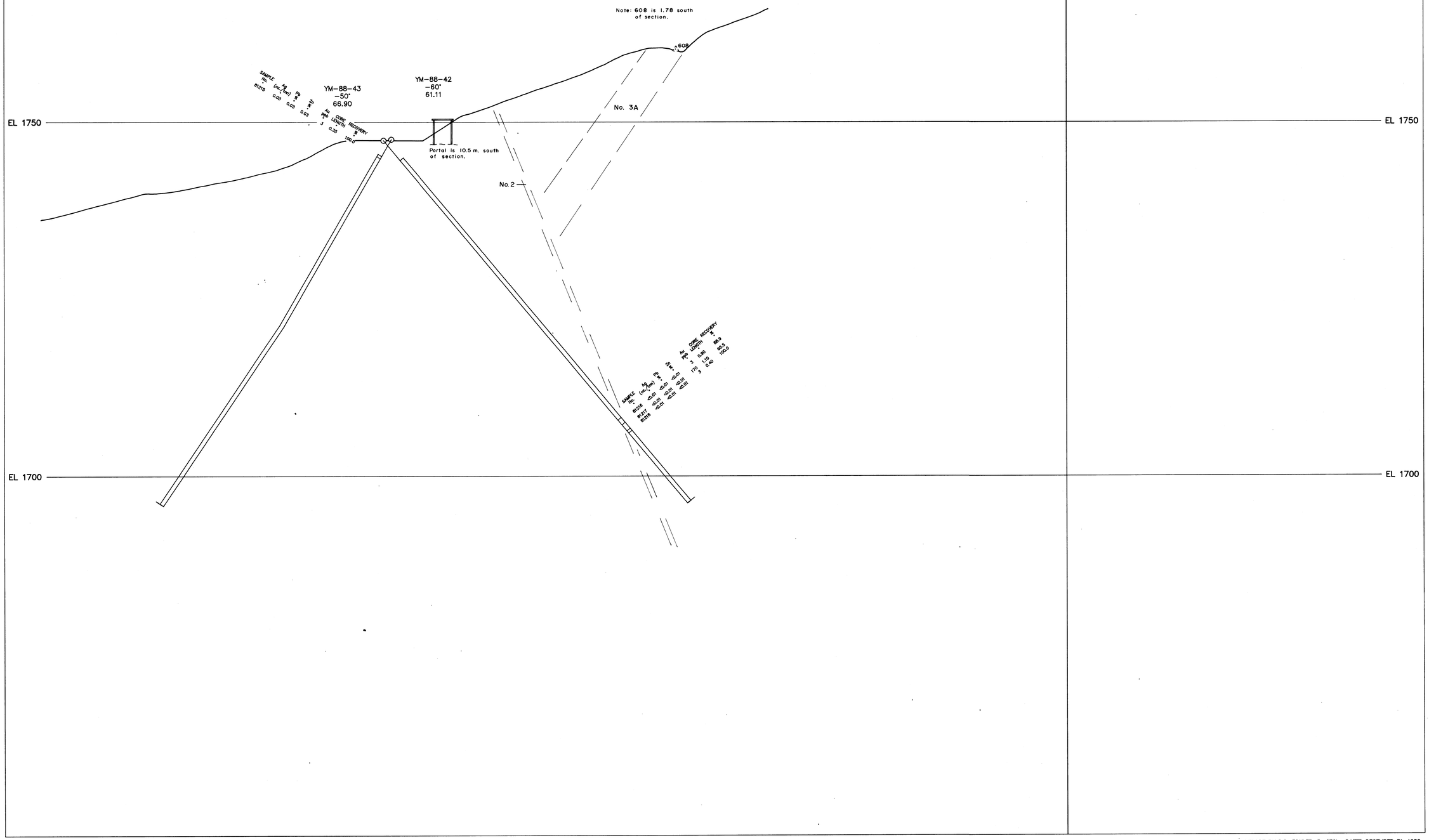
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 80 75 100 FEET

No.2 & No.3 ZONE
VERTICAL CROSS SECTION - 3+30 N GEOLOGY
LOOKING N 32° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. | DWG. No. 3S-G6
DRAWN BY: POLARIS CONSULTING , J.B.

OFFSET REFERENCE LINE (2200m WEST OF TRUE REFERENCE LINE)



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %
Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

inches
centimetres

This reference scale bar has been added to the original drawing. If not exactly as the same size as the original, it can be used as a guide to the size of the original drawing.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

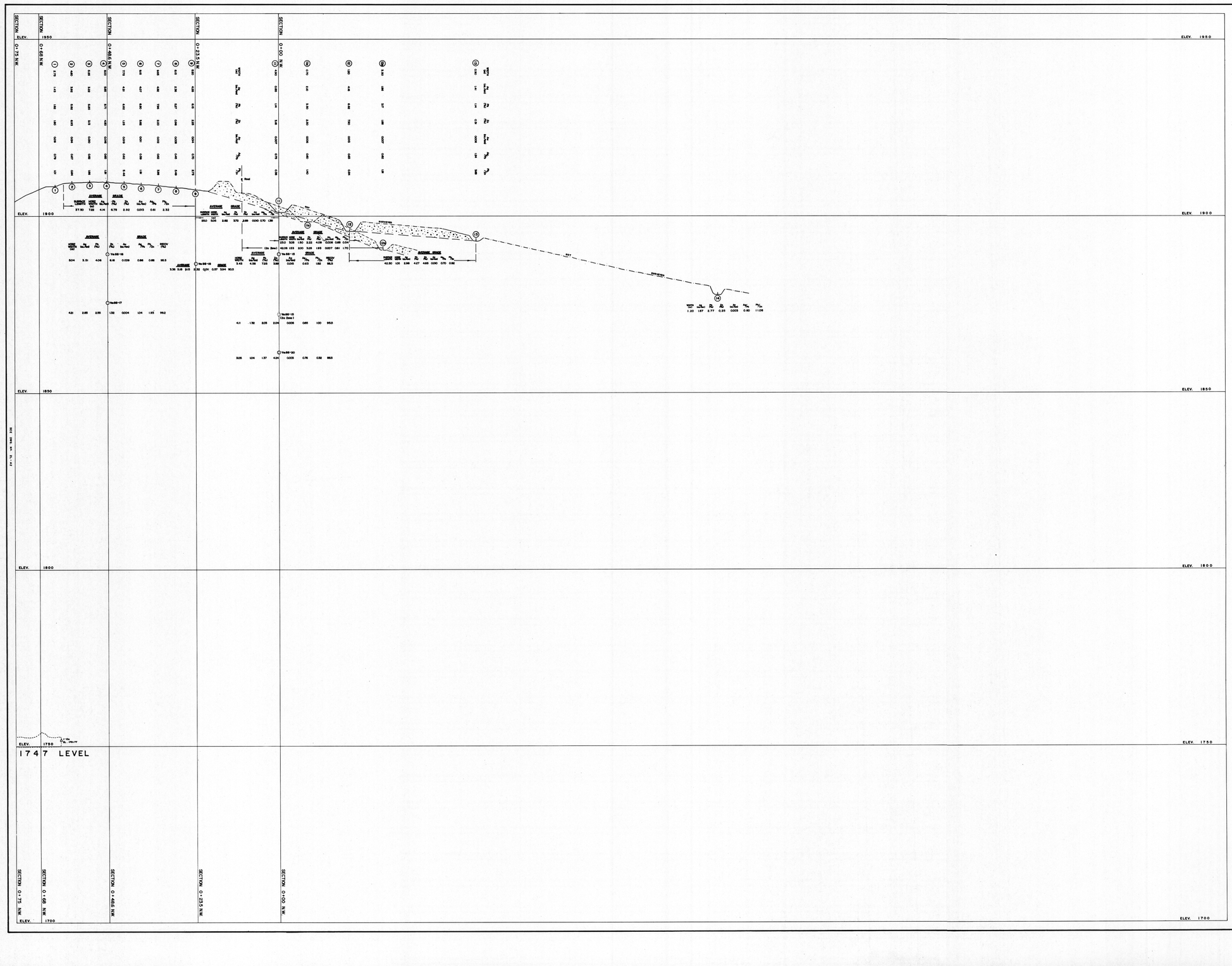
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No.2 & No.3 ZONE
VERTICAL CROSS SECTION – 3+30 N ASSAY
LOOKING N 32° W

DATE: DECEMBER 31, 1988 | TECH.: B.F & R.H.
DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER

DWG. No. 3S-A6



REVISIONS

LEGEND

LITHOLOGY

- Ct CHERT
- D DOLOSTONE
- M MUDSTONE
- Sh SHALE
- Ph PHYLLITE
- St SILTSTONE
- Qz QUARTZITE/ARENITE
- C CONGLOMERATE
- A ANDESITE
- S SYENITE

MINOR COMPONENTS

- d DOLOMITIC
- (f) FOSSILIFEROUS
- si SILICIFIED
- a ANKERITIC
- c CALCAREOUS
- g CLAY/GOUGE
- b BLEACHED
- m MANGANESE
- h HEMATITE
- k CHLORITE
- ph PHYLLITIC
- sl. SILTY
- cb CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
Py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- acanthite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive galena +/- sphalerite +/- pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- lDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Dampb Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereatic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- SDbl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- lMDwt Grey – buff calcareous phyllite; thinly laminated
- lMDb Dark green mafic flow or sill

EARLY CAMBRIAN
- lKcel Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

DRILL HOLE DATA

YU-88-X (DRILL HOLE No.) -45° (INCLINATION) 83.00 (LENGTH – metres)

ASSAY: AVERAGE, GRADE — WIDTH, Ag, Pb, Zn, Cu, Au (ppb), Sb, Hg, Mo, Pb/Zn RECOVERY

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

CHANNEL SAMPLE DATA

- Ag (oz/ton)
- Pb %
- Zn %
- Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

REFERENCE

- In front of section
- Behind section
- Control Station

inches / centimetres

This reference scale bar was accurate when the original sheet, in A1 size, was at the same size as this reduction. It can be used as a reference for the original size.

TO ACCOMPANY REPORT BY R.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988

YUKON MINERALS – PERREX J.V.

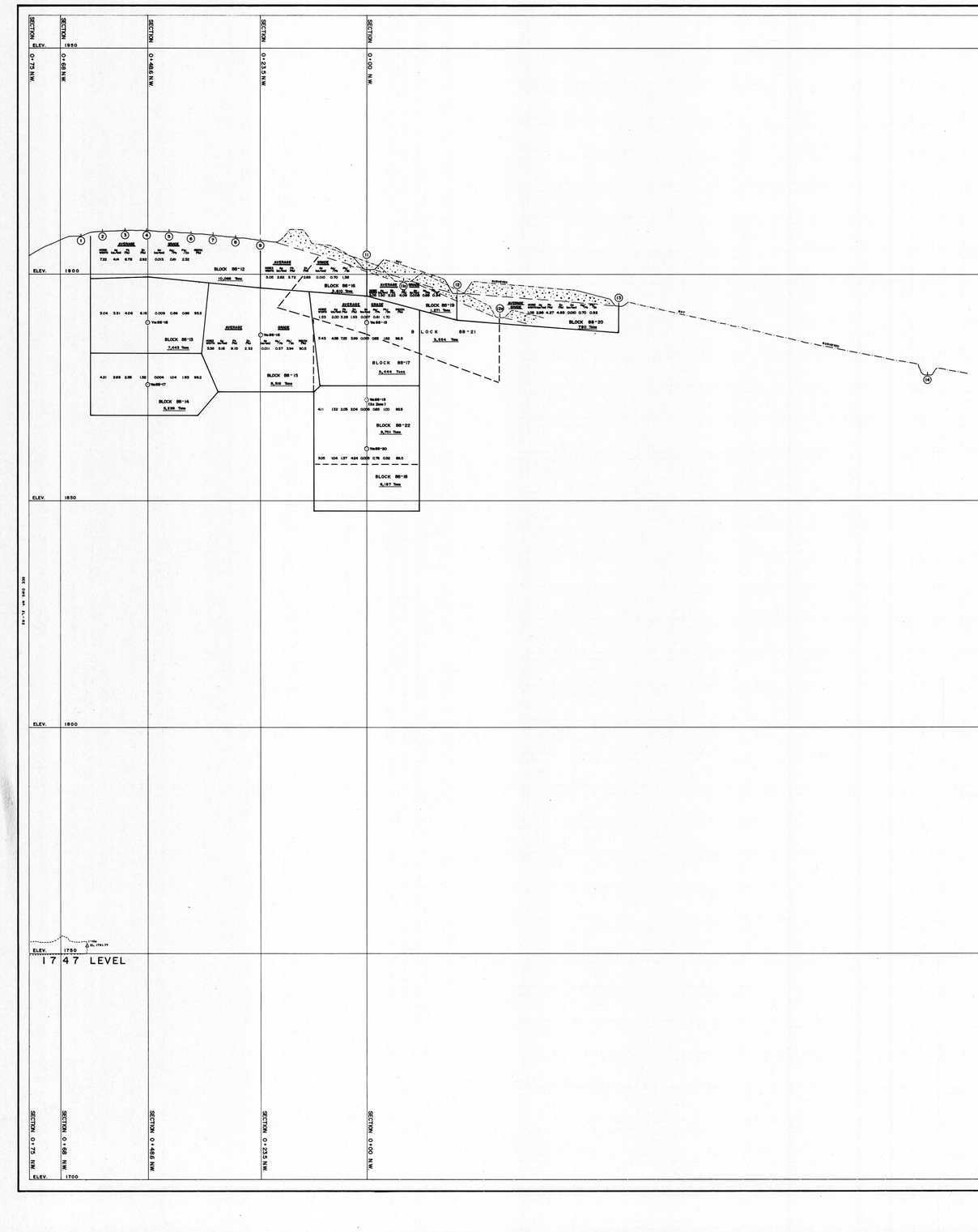
KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N, LONG. 132° 32' W, NTS 105 F/10

Scale 1:500 (metres / feet)

NO. 2 ZONE
ASSAY LONGITUDINAL SECTION
LOOKING N 38° E

DATE NOVEMBER 29, 1988 | TECH.: R.F.
DRAWN BY: POLARIS CONSULTING, J.T.
DWG. No. 2L-A1



REVISIONS

LEGEND

LITHOLOGY

- Ct CHERT
- D DOLOSTONE
- M MUDSTONE
- Sh SHALE
- Ph PHYLLITE
- Ls LIMESTONE
- Qa QUARTZITE/ARENITE
- C CONGLOMERATE
- A ANDESITE
- S SYENITE

MINOR COMPONENTS

- d DOLOMITIC
- (f) FOSSILIFEROUS
- s SILICIFIED
- a ARGILLIC
- c CALCAREOUS
- g CLAY/GOUGE
- b BLEACHED
- m MANGANESE
- h HEMATITE
- t TARNISH
- ph PHYLLITIC
- st SILTY
- cb CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE — MASSIVE

Sp SPHALERITE
Py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- acanthite +/- malachite +/- cerussite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >10 clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT — OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Carbonaceous dolostone, black, fine grained minor phyllite
- Amphipora +/- stromatoporoid dolostone
- Phyllitic dolostone with bands of silicified dolostone
- Silicified dolostone, fine grained, sereclitic
- Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- Grey — buff calcareous phyllite; thinly laminated
- Dark green mafic flow or sill

EARLY CAMBRIAN
- Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

DRILL HOLE DATA

88-BR-3 (DRILL HOLE No.)
-45° (INCLINATION)
65.00 (LENGTH — metres)

ASSAY REFERENCE
Au g/t
Ag oz/t
Pb %
Zn %
Cu %
As %
Sb %
Fe %
Mn %
Ba %
W WEIGHT %
Mo PPM
Bi PPM
Hg PPM
Ag PPM
Au PPM

AVERAGE GRADE
WIDTH (m) Au g/t Ag oz/t Pb % Zn % Cu % As % Sb % Fe % Mn % Ba % W % Mo PPM Bi PPM Hg PPM Ag PPM Au PPM RECOVERY %

NOTE:
Elevations are Geodetic. All distances and elevations are in metres unless noted.

CHANNEL SAMPLE DATA

- Ag (oz./ton)
- Pb (%)
- Zn (%)
- Au (ppb)
- SAMPLE WIDTH (m)
- SAMPLE No.

REFERENCE

- In front of section
- Behind section
- Control Station

inches 0 1
centimetres 0 1 2

This reference scale for use on reductions of the original. It will scale at the same rate as the original and can be used as a reference for the original size.

TO ACCOMPANY REPORT BY R. P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988

YUKON MINERALS — PERREX J.V.

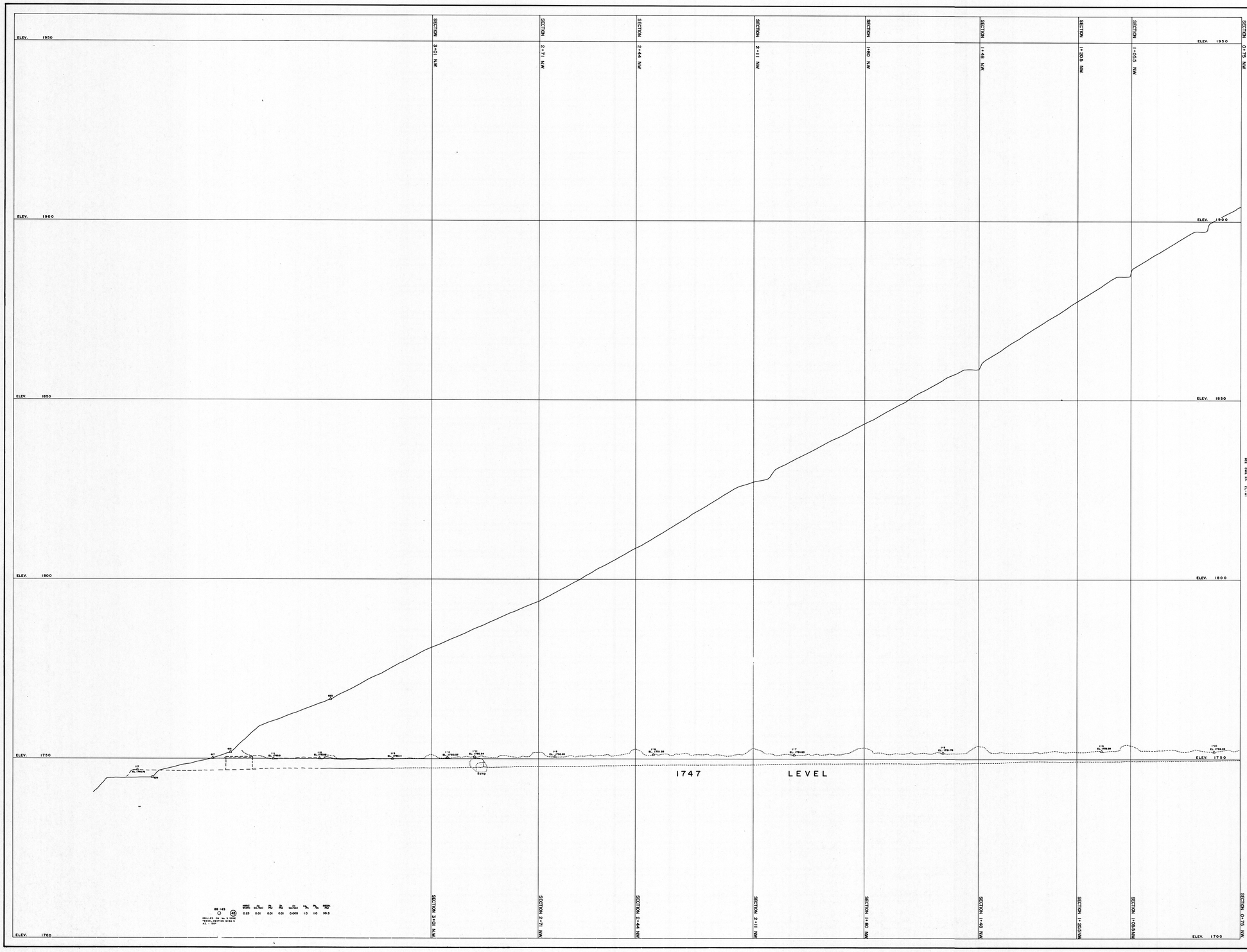
KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N, LONG. 132° 52' W, NTS 105 F/10

Scale 1:500 METRES 1 0 5 10 15 20 25 30 METRES
FEET 1 0 5 10 15 50 FEET

No. 2 ZONE
RESERVE LONGITUDINAL SECTION
LOOKING N 50° E

DATE: NOVEMBER 29, 1988 TECH.: R. F.
DRAWN BY: POLARIS CONSULTING , J.T.
DWG. No. 2L-R1



REVISIONS

LEGEND

LITHOLOGY

Cl	CHERT
D	DOLOSTONE
M	MUDSTONE
P	PHYLLITE
PP	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(D)	DOLOMITEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
cy	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
Py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT – OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Carbonaceous dolostone, black, fine grained minor phyllite
- Amphibore +/- stromatoporoid dolostone
- Phyllitic dolostone with bands of silicified dolostone
- Silicified dolostone, fine grained, sereitic
- Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- Grey – buff calcareous phyllite; thinly laminated
- Dark green mafic flow or sill

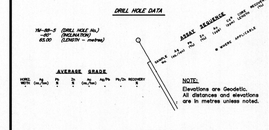
EARLY CAMBRIAN
- Grey calcareous mica schist and marble

(modified after Templeman–Kluit, 1977)

REFERENCE

- In front of section
- Behind section
- Control Station

DRILL HOLE DATA



CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (opb)
SAMPLE WIDTH (m)
SAMPLE No.

inches
centimetres

This reference scale bar has been added to the original image. It will not be accurate for use on the image. Therefore it can be used as a reference for the final original size.

TO ACCOMPANY REPORT BY: R.P. FOWLER, P. GEOL., DATED: DECEMBER 31, 1988

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

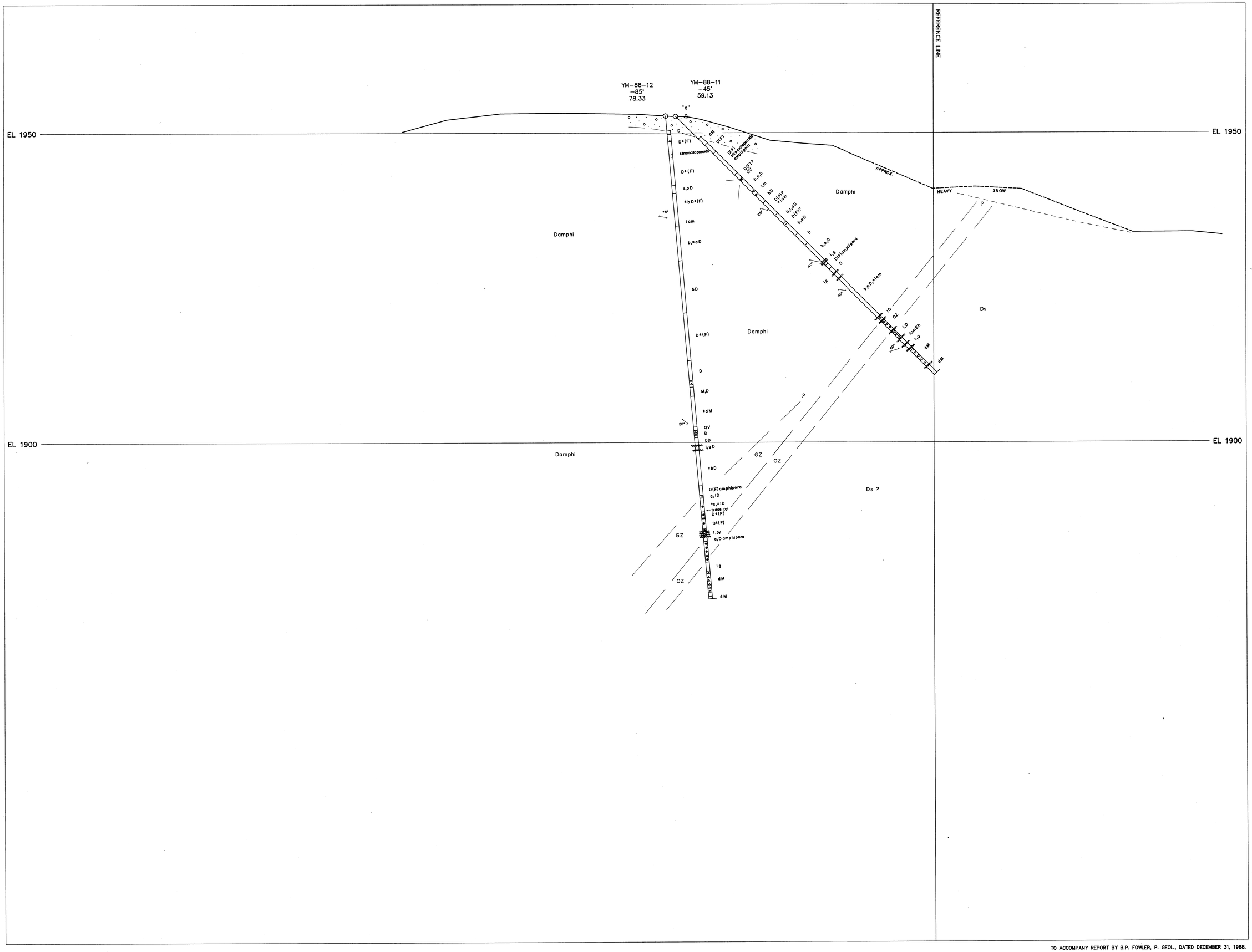
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N, LONG. 132° 52' W, NTS 105 F/10

Scale 1:500

No. 2 ZONE

ASSAY LONGITUDINAL LOOKING N 36°E SECTION

DATE: NOVEMBER 29, 1988 TECH.: B.F.
DRAWN BY: POLARIS CONSULTING, J.T.
DWG. No. 2L - A2



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

LEGEND

REVISIONS

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches
centimetres
This reference scale bar has been added to the original image. It will change if the image is resized, therefore it cannot be used to reference a feature to the original size

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gauge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35/ FOLIATION & ANGLE TO CORE AXIS
- 35/ BEDDING & ANGLE TO CORE AXIS
- JOINTING
- — — GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dd(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- DamphA Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereictic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

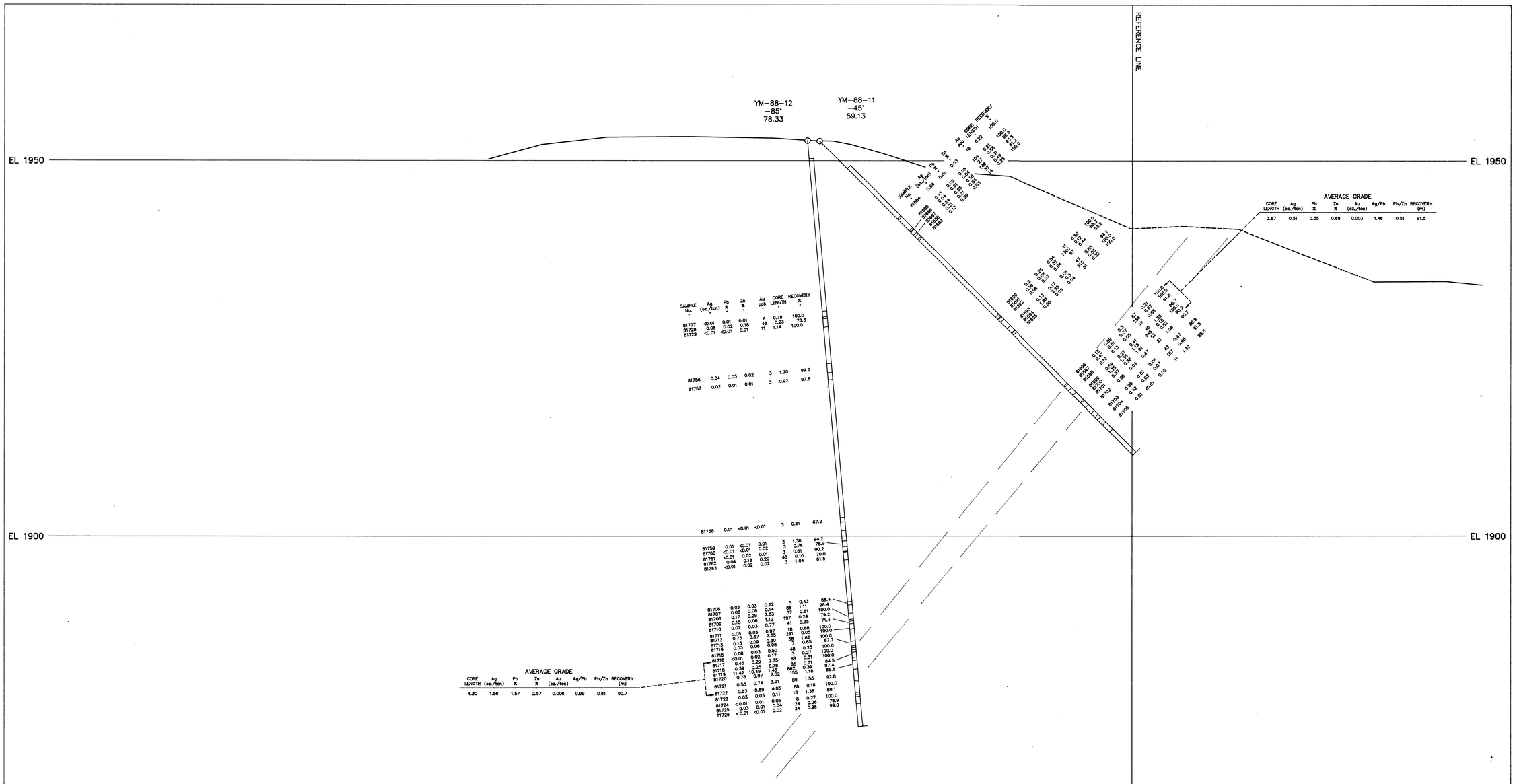
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION - 0+30 N GEOLOGY
LOOKING N 20° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. | DWG. No. 3S-G1

DRAWN BY: POLARIS CONSULTING , J.B.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-80° (INCLINATION)
65.00 (LENGTH - metres).

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

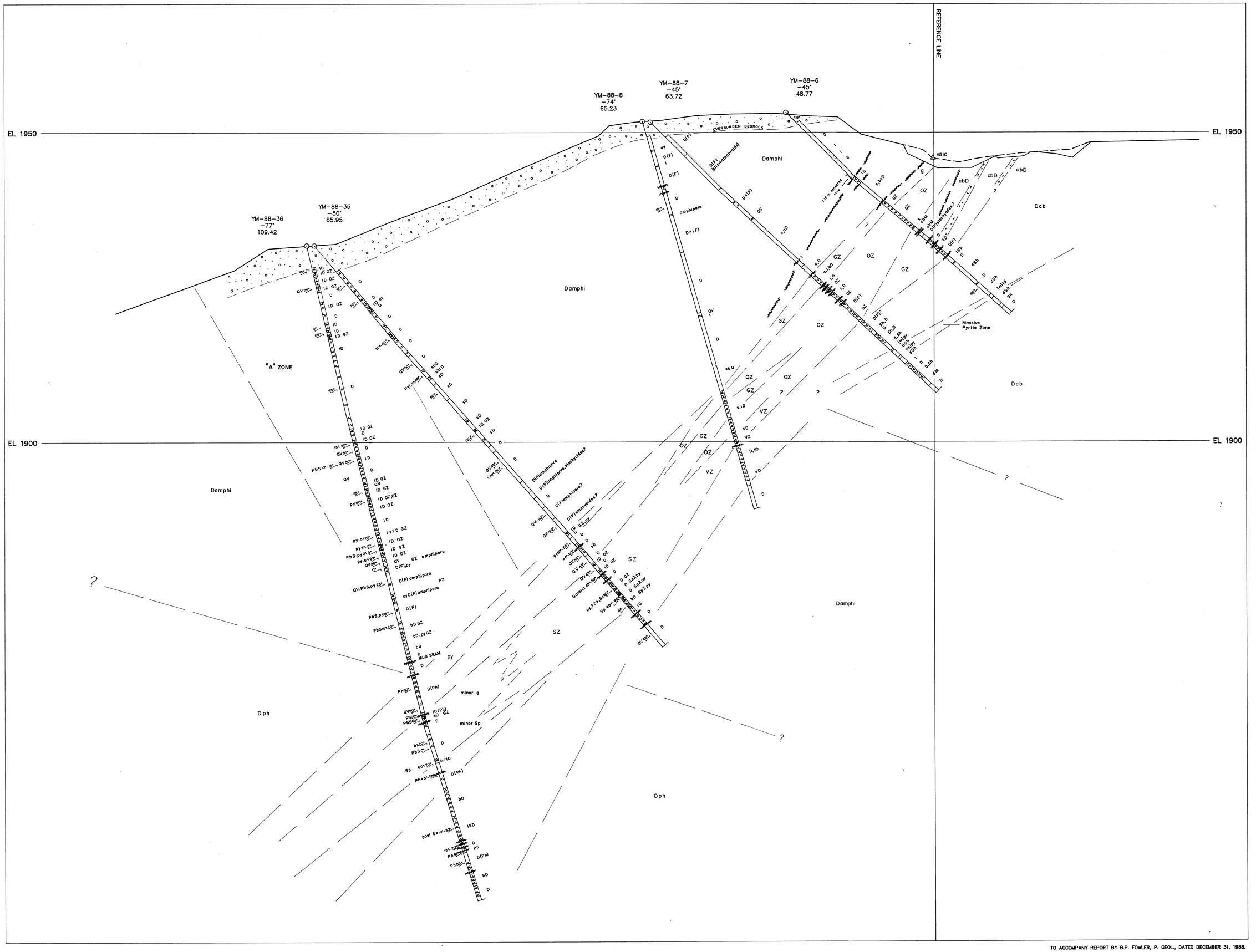
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION – 0+30 N ASSAY
LOOKING N 20° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. & R.H. | DWG. No. 3S-A1
DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER

This reference scale for microfilming was the original image. It will change if this image is enlarged or reduced in size. Use the reference line on the original size.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- ecorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dike
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- De(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sericitic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOdlv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- Kcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

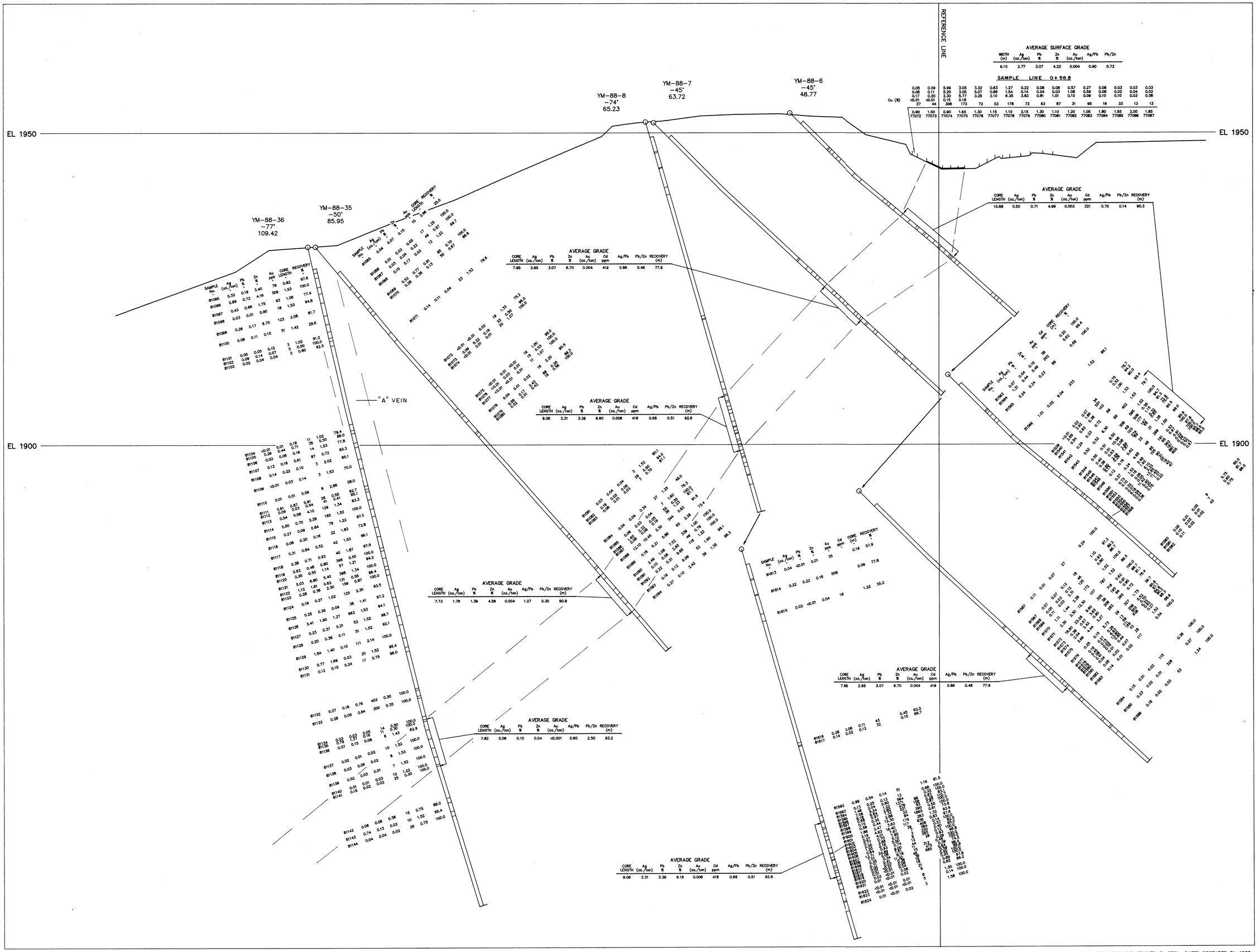
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION - 04+58.5 N GEOLOGY
LOOKING N 20° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. | DWG. No. 3S-G2

DRAWN BY: POLARIS CONSULTING , J.B.



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY % | Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

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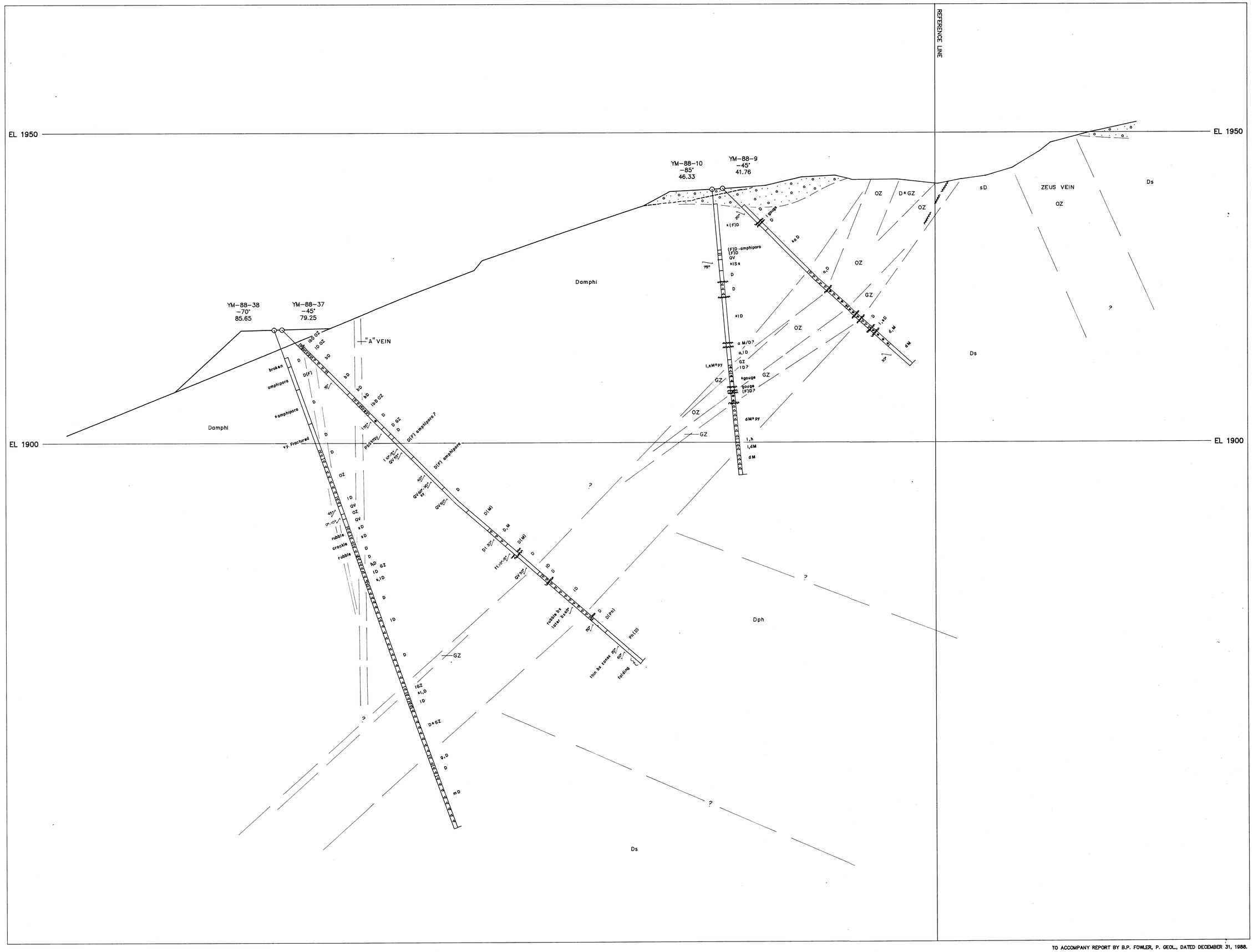
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION – 0+58.5 N ASSAY
LOOKING N 20° W

DATE: *DECEMBER 31, 1988* | TECH.: *B.F. & R.H.* | DWG. No. *3S-A2*
DRAWN BY: *WRIGHT, HILLYARD, PARRY, & FULLER*



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

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(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

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PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35° FOLIATION & ANGLE TO CORE AXIS
- 35° BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED

lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

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SILURIAN, EARLY AND MIDDLE DEVONIAN
- D_e(Qz+Ph) — Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb — Carbonaceous dolostone, black, fine grained minor phyllite
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ORDOVICIAN AND SILURIAN
- OSsl — Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv — Grey - buff calcareous phyllite; thinly laminated
- uEOb — Dark green mafic flow or sill

EARLY CAMBRIAN
- lEcsl — Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

YUKON MINERALS - PERREX J.V.

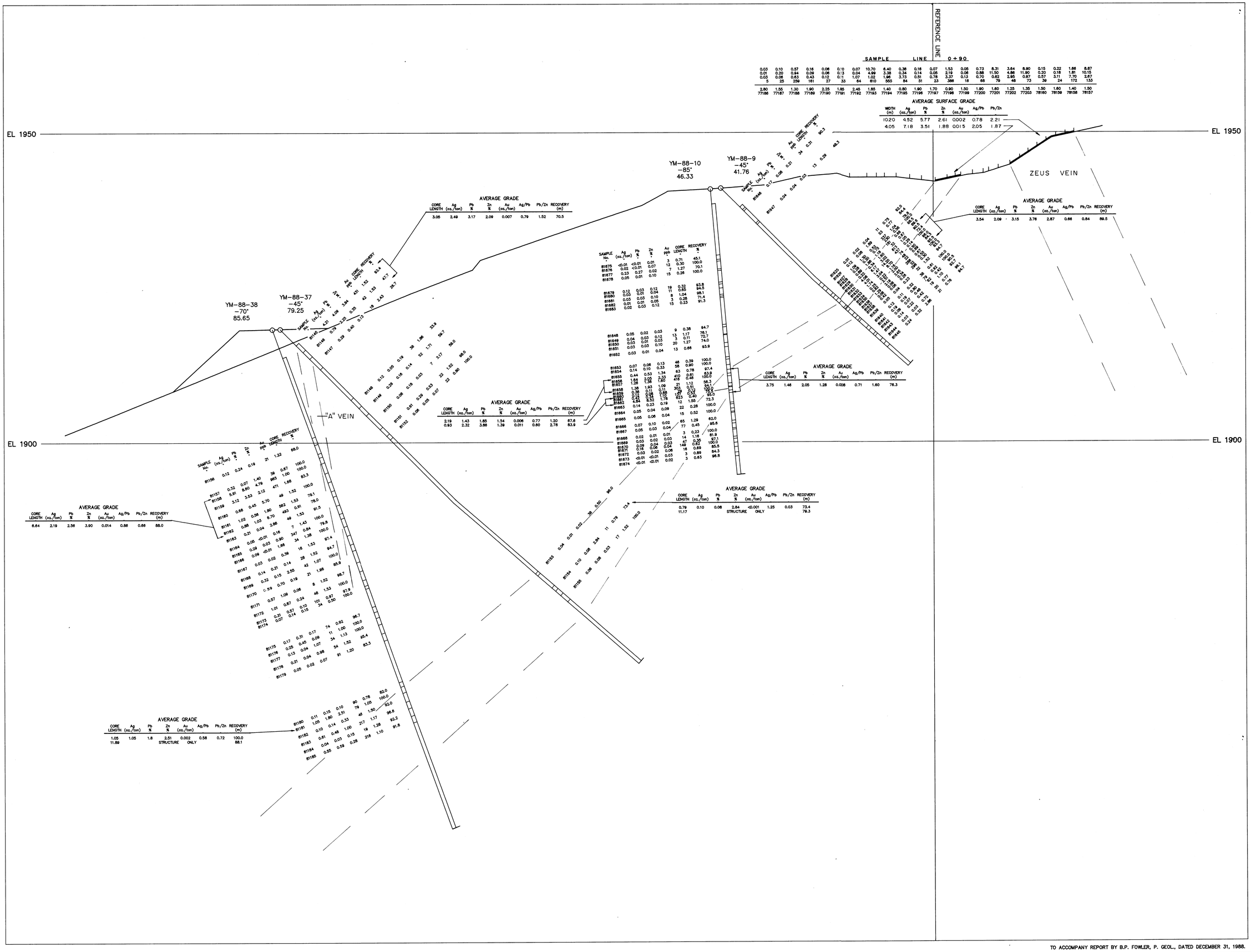
KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

No. 3 ZONE

VERTICAL CROSS SECTION - 0+90 N GEOLOGY
LOOKING N 20° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F.
DRAWN BY: POLARIS CONSULTING , J.B.
DWG. No. 3S-G3



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 *(DRILL HOLE No.)*
-80° *(INCLINATION)*
65.00 *(LENGTH – metres)*

ASSAY SEQUENCE: SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %; Cd (ppm) Where Applicable

AVERAGE GRADE: HORIZ. WIDTH (m) | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

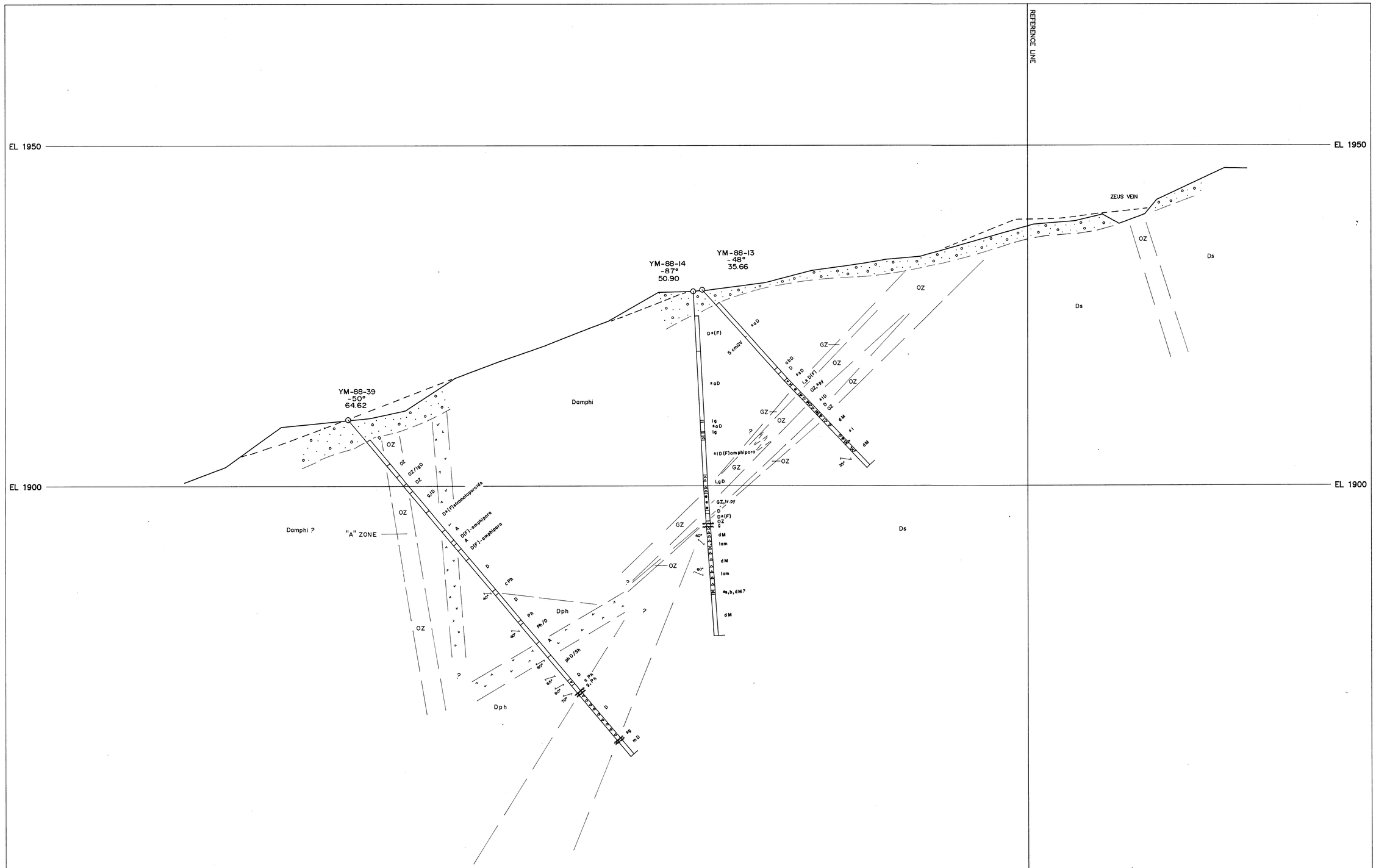
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION – 0+90 N ASSAY
LOOKING N 20° W

DATE: DECEMBER 31, 1988 | TECH.: B.F & R.H.
DRAWN BY: ~~DRAFT~~ HILLYARD, PARRY, & FULLER
DWG No. 3S-A3



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
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Qz	QUARTZITE/ARENITE
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MINOR COMPONENTS

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cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE
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- Py PYRITE
- VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
- OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
- GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
- SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
- PZ PYRITE ZONE; massive, clotted pyrite
- QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35 FOLIATION & ANGLE TO CORE AXIS
- 35 BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY

- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY

- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN

- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN

- Dd(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite

- Damphi Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereictic
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN

- OSel Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN

- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN

- lEcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
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inches 0 1 2 3
centimetres 0 1 2
This reference scale for hard copy plots is for original image. It will change proportionally as the image. Relative to can be used as a reference for 11x17 (154 original size.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250
METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION - 1+14 N GEOLOGY
LOOKING N 20° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. | DWG. No. 3S-G4
DRAWN BY: POLARIS CONSULTING , J.B.

REFERENCE LINE

EL 1950

EL 1900

SAMPLE LINE 1+15

0.09	0.19	0.27
0.21	0.26	0.28
0.12	0.85	2.34
10	28	86
1.45	1.10	1.15
78122	78121	78120

ZEUS VEIN

AVERAGE SURFACE GRADE

WIDTH (m)	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn
2.25	0.23	0.27	1.83	0.002	0.85	0.17

YM-88-39
-50°
64.62

"A" VEIN

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
5.38	0.15	0.14	0.09	0.002	1.07	1.56	76.6

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
81792	<0.01	0.005	0.01	3	0.19	100.0
81793	0.03	0.03	0.14	30	0.32	81.3
81794	0.01	0.005	0.02	7	0.61	68.9

YM-88-14
-87°
59.90

YM-88-13
-48°
35.66

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
	1.25	0.06	0.31	1901	0.30	58.7

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
6.31	2.49	2.55	2.2	0.008	0.98	1.15	78.3

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
0.79	1.36	2.36	1.59	0.002	0.58	1.48	98.7

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
81769	0.25	0.37	0.17	47	0.93	84.9
81770	0.01	0.02	0.07	3	0.50	93.8
81771	0.08	0.12	0.15	7	0.54	94.1
81772	0.33	0.31	0.17	30	0.66	84.9
81773	0.06	0.22	0.08	8	0.64	92.2
81774	0.19	0.88	0.02	12	0.61	95.1
81775	0.14	0.18	0.03	24	1.15	93.8
81776	0.12	0.25	0.05	6	0.47	100.0
81777	0.07	0.07	0.15	10	1.20	97.5
81778	2.92	5.40	2.17	41	0.33	97.0
81779	0.24	0.20	1.07	68	0.30	100.0
81780	0.23	0.13	1.36	36	0.18	100.0
81781	0.02	0.02	0.11	7	0.90	90.0
81782	<0.01	0.01	0.07	3	1.59	58.5
81783	<0.01	0.005	0.04	8	0.25	100.0
81784	0.01	0.01	0.05	8	0.05	100.0
81785	0.02	0.01	0.09	11	1.52	92.8
81786	0.01	0.005	0.09	6	1.22	92.6
81787	<0.01	0.005	0.03	6	1.53	96.1
81788	0.05	0.07	0.05	13	1.52	68.4
81789	0.02	0.02	0.04	10	0.73	91.8
81790	<0.01	0.01	0.12	7	0.60	55.0
81791	<0.01	0.005	0.02	9	1.05	92.4

SAMPLE No.	Ag (oz./ton)	Pb %	Zn %	Au ppb	CORE LENGTH	RECOVERY %
81165	0.12	0.14	0.28	23	0.50	74.0
81167	0.15	0.15	0.05	70	1.68	69.9
81168	0.18	0.21	0.10	77	1.87	59.9
81169	0.11	0.06	0.06	54	1.53	81.0
81190	0.02	0.02	0.02	8	1.06	58.0
81191	0.02	0.01	0.02	14	1.07	84.1
81192	0.02	0.01	0.02		1.52	82.9
81194				18	1.53	85.4
81183	0.04	0.03	0.22	17	0.83	100.0
81185	0.44	1.10	0.05	19	0.60	56.7
81186	<0.01	0.02	0.11	5	2.15	81.9
81197	<0.01	<0.01	0.06	3	1.97	91.4

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
0.60	0.44	1.10	0.05	0.001	0.40	22.0	56.7
9.28			STRUCTURE	ONLY			93.3

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-60° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %
Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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inches / centimetres

This reference scale has been added to the original drawing. The scale at the same ratio as the image therefore remains valid for any reference to the original size.

YUKON MINERALS – PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

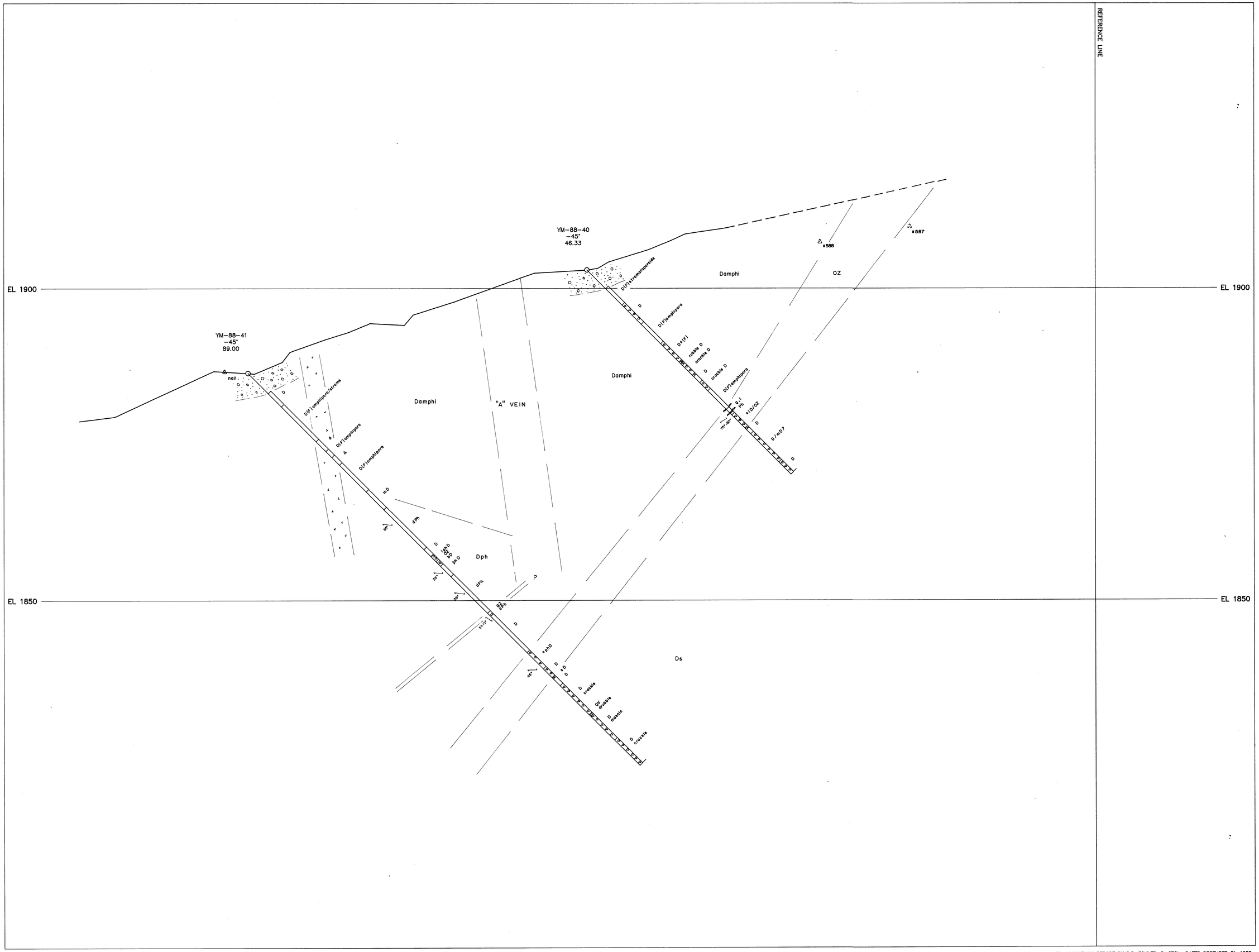
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION – 1+14 N ASSAY
LOOKING N 20° W

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. 3S-A4

DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- FOLIATION & ANGLE TO CORE AXIS
- BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

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SILURIAN, EARLY AND MIDDLE DEVONIAN
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LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1: 250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
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No. 3 ZONE
VERTICAL CROSS SECTION - 1+61 N GEOLOGY
LOOKING N 32° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F.
DRAWN BY: POLARIS CONSULTING , J.B.
DWG. No. 3S-G5

REFERENCE LINE

EL 1900

EL 1850

YM-88-40
-45°
46.33

YM-88-41
-45°
89.00

"A" VEIN

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
5.17	0.29	0.47	0.27	0.001	0.62	1.74	88.6

AVERAGE GRADE

CORE LENGTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY (m)
1.97 5.94	0.01	0.01	0.08 STRUCTURE	<0.001 ONLY	1.00	0.12	88.8 83.8

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-80° (INCLINATION)
65.00 (LENGTH - metres)

ASSAY SEQUENCE

AVERAGE GRADE

HORIZ. WIDTH	Ag (oz./ton)	Pb %	Zn %	Au (oz./ton)	Ag/Pb	Pb/Zn	RECOVERY %

LEGEND

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

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inches
centimetres
This reference scale for use when plotting the original image. It will not be accurate as the image, therefore, cannot be used as a reference. 100 = the original size

YUKON MINERALS - PERREX J.V.

KETZA PROJECT
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

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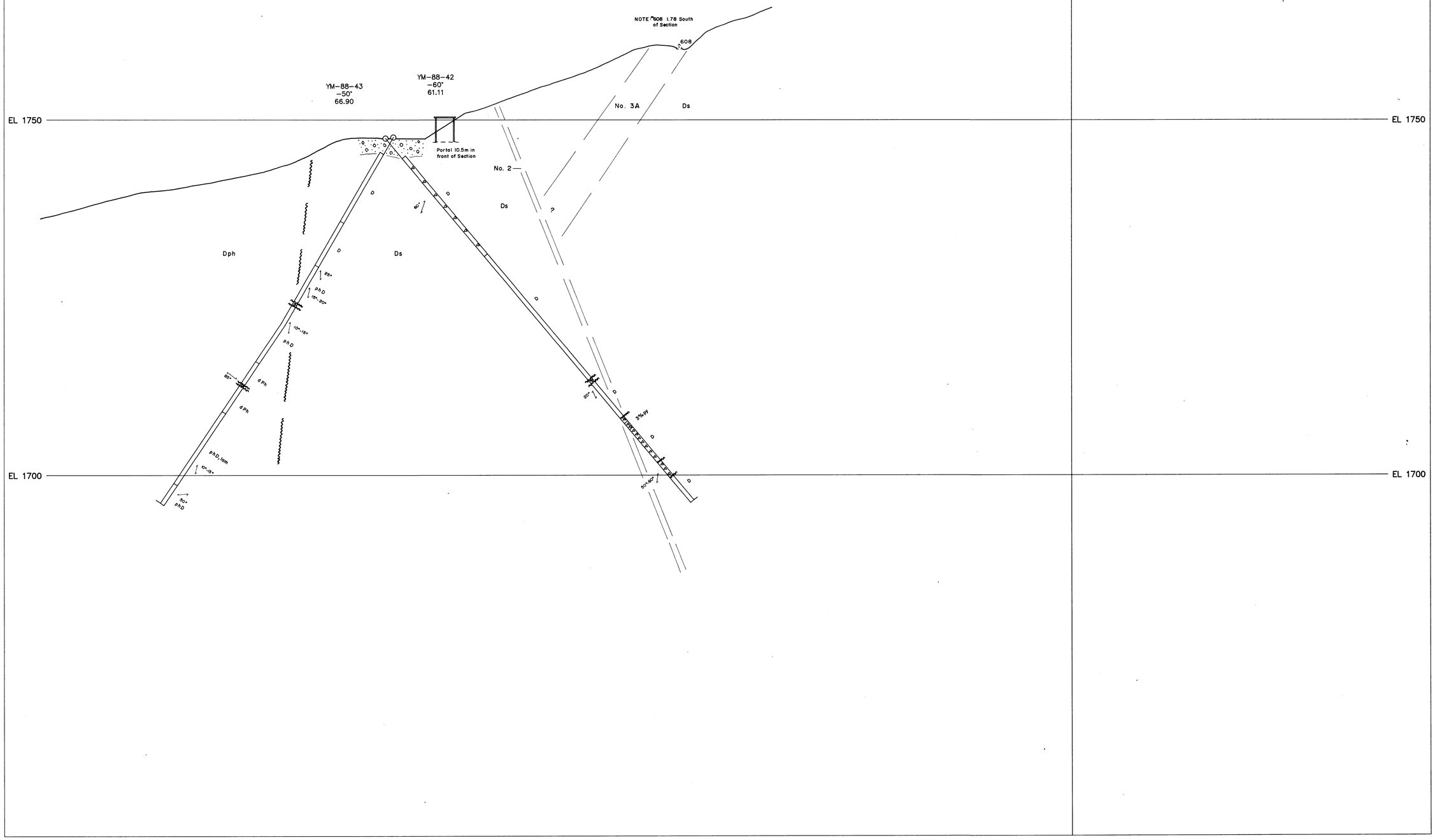
VERTICAL CROSS SECTION - 1+61 N ASSAY
LOOKING N 32° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. & R.H.
DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER
DWG. No. 3S-A5

OFFSET REFERENCE LINE (200m WEST OF TRUE REFERENCE LINE)



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

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YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

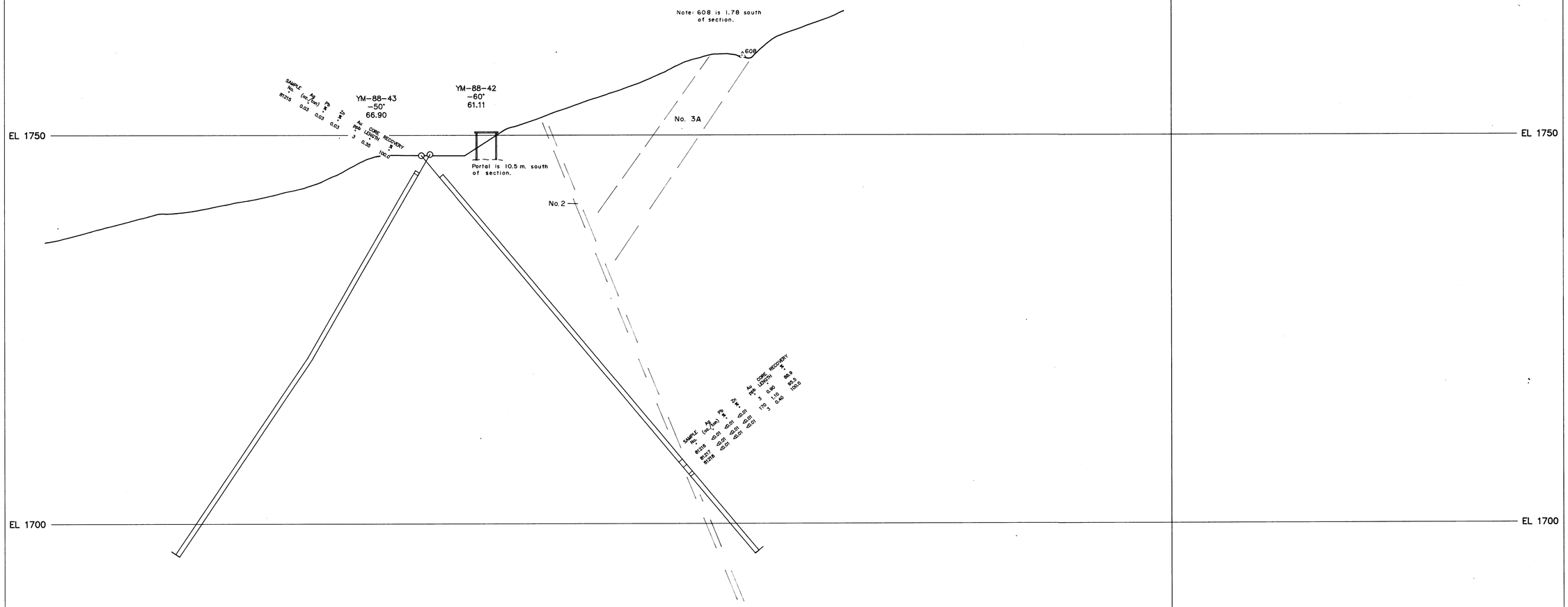
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION - 3+30 N GEOLOGY
LOOKING N 32° W

DATE: NOVEMBER 26, 1988 | TECH.: B.F. | DWG. No. 3S-G6
DRAWN BY: POLARIS CONSULTING , J.B.

OFFSET REFERENCE LINE (200m WEST OF TRUE REFERENCE LINE)



TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988.

REVISIONS

LEGEND

DRILL HOLE DATA

YM-88-5 (DRILL HOLE No.)
-80° (INCLINATION)
65.00 (LENGTH – metres)

ASSAY SEQUENCE

SAMPLE No. | Ag (oz./ton) | Pb % | Zn % | Au ppb | CORE LENGTH | RECOVERY %
Cd (ppm) Where Applicable

AVERAGE GRADE

HORIZ. WIDTH | Ag (oz./ton) | Pb % | Zn % | Au (oz./ton) | Ag/Pb | Pb/Zn | RECOVERY %

CHANNEL SAMPLE DATA

Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)

SAMPLE WIDTH (m)
SAMPLE No.

NOTE:
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inches / centimetres
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YUKON MINERALS – PERREX J.V.

KETZA PROJECT

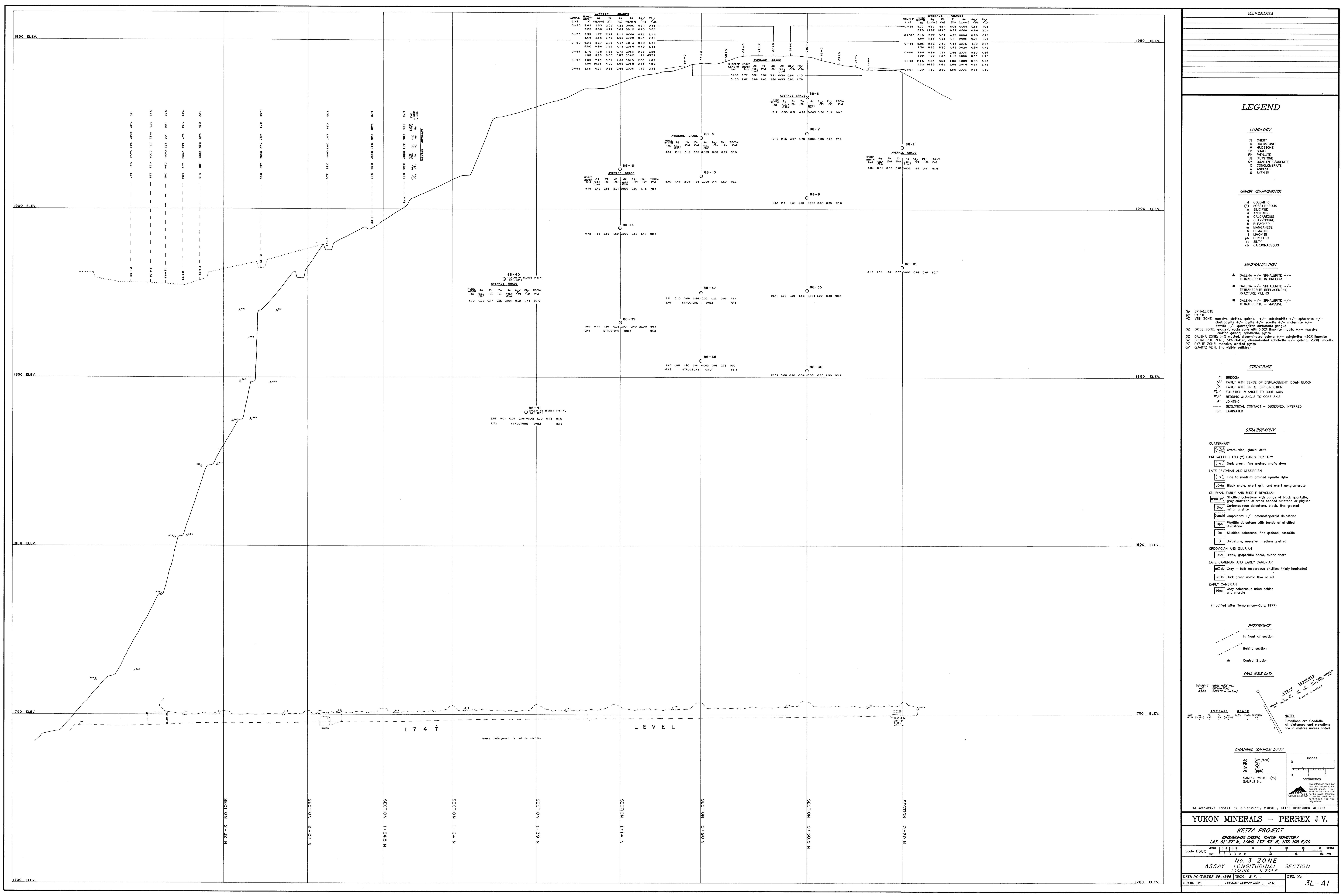
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

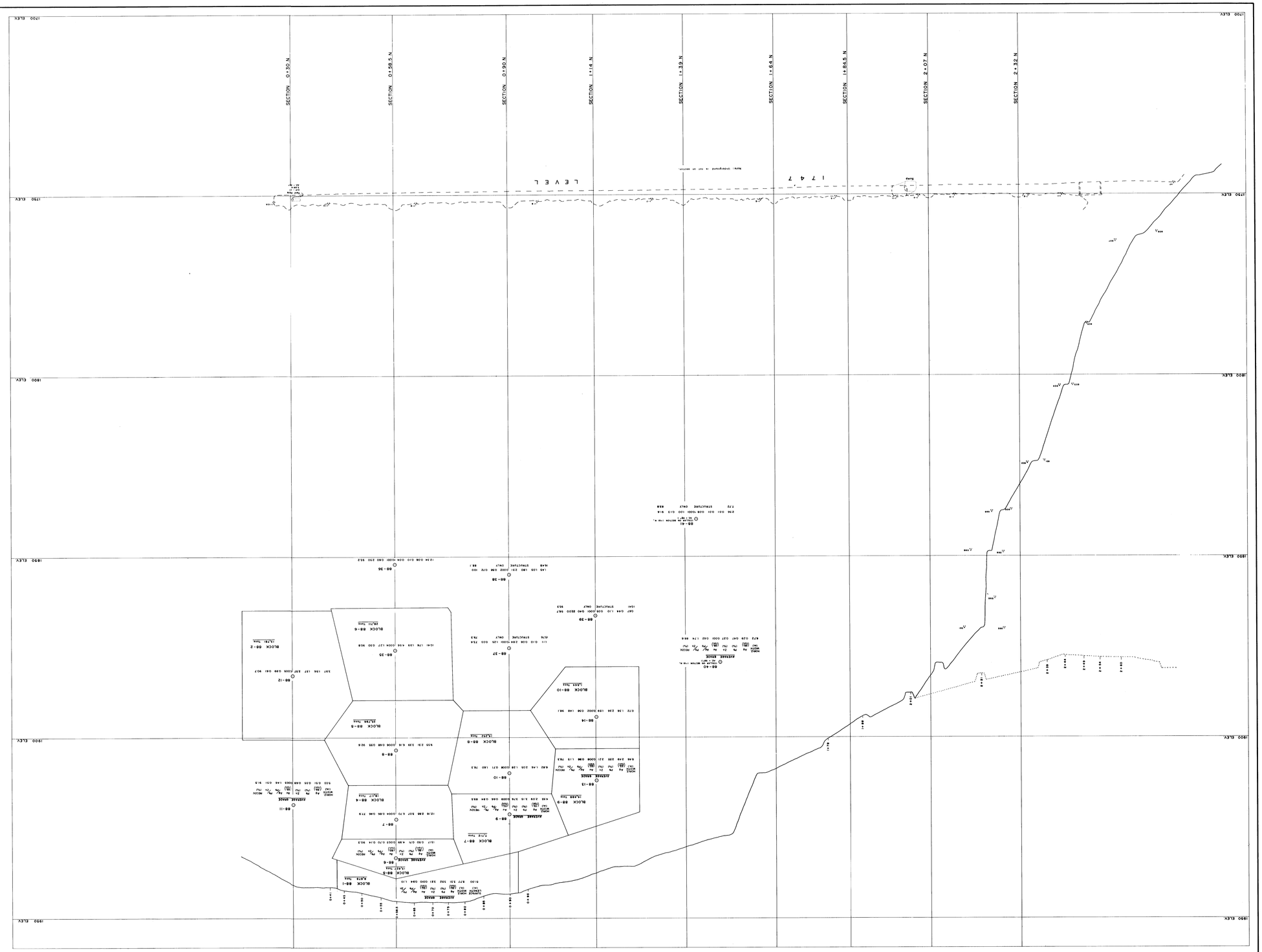
Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

No. 3 ZONE
VERTICAL CROSS SECTION – 3+30 N ASSAY
LOOKING N 32° W

DATE: DECEMBER 31, 1988 | TECH.: B.F. & R.H. | DWG. No. 3S-A6
DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER


1950 ELEV.
1900 ELEV.
1850 ELEV.
1800 ELEV.
1750 ELEV.
1700 ELEV.
AVERAGE GRADES
SAMPLE LINE | HORIZ. WIDTH (m.) | Ag (oz./ton) | Pb (%) | Zn (%) | Au (oz./ton) | Ag/Pb | Pb/Zn
0+70 9.45 1.55 2.02 4.22 0.006 0.77 0.48
4.20 3.30 4.41 6.64 0.012 0.75 0.66
0+75 9.35 1.77 2.41 2.11 0.006 0.73 1.14
3.65 3.16 3.76 1.58 0.009 0.84 2.38
0+80 6.95 5.67 7.21 4.57 0.013 0.79 1.58
6.50 5.96 7.55 4.13 0.014 0.79 1.83
0+85 5.70 1.78 1.86 0.73 0.033 0.96 2.55
1.30 3.40 3.06 0.07 0.042 1.11 43.71
0+90 4.05 7.18 3.51 1.88 0.015 2.05 1.87
1.85 10.71 4.99 1.02 0.018 2.15 4.89
0+95 2.16 0.27 0.23 0.64 0.006 1.17 0.36
AVERAGE GRADES
0+65 5.00 5.52 6.64 6.08 0.004 0.86 1.06
2.25 11.92 14.13 6.92 0.006 0.84 2.04
0+58.5 6.10 2.77 3.07 4.22 0.004 0.90 0.73
3.85 3.83 4.23 4.11 0.005 0.91 1.03
0+55 5.95 2.33 2.32 4.35 0.006 1.00 0.53
1.30 8.65 9.20 1.95 0.020 0.94 4.72
0+50 3.85 0.85 1.41 0.86 0.003 0.60 1.64
1.22 1.27 2.33 1.19 0.005 0.55 1.96
0+45 2.15 8.63 9.54 1.86 0.009 0.90 5.13
1.22 14.95 16.45 2.86 0.014 0.91 5.75
0+41 1.20 1.82 2.40 1.85 0.003 0.76 1.30
AVERAGE GRADE
SURFACE LENGTH (m.) | HORIZ. WIDTH (m.) | Ag | Pb | Zn | Au | Ag/Pb | Pb/Zn
51.00 5.77 3.31 3.52 3.21 0.010 0.94 1.10
51.00 2.67 5.98 6.45 3.60 0.013 0.93 1.79
88-6 AVERAGE GRADE
HORIZ. WIDTH (m) | Ag (oz/ton) | Pb (%) | Zn (%) | Au (oz/ton) | Ag/Pb | Pb/Zn | RECOV. (%)
13.17 0.50 0.71 4.99 0.003 0.70 0.14 90.3
88-7
12.16 2.65 3.07 6.70 0.004 0.86 0.46 77.9
88-8
9.55 2.31 3.39 6.16 0.006 0.68 0.55 92.6
88-9 AVERAGE GRADE
4.55 2.09 3.15 3.76 0.009 0.66 0.84 89.5
88-10
6.82 1.46 2.05 1.28 0.008 0.71 1.60 76.3
88-11 AVERAGE GRADE
5.03 0.51 0.35 0.68 0.003 1.46 0.51 91.5
88-12
3.97 1.56 1.57 2.57 0.005 0.99 0.61 90.7
88-13 AVERAGE GRADE
8.46 2.49 2.55 2.21 0.008 0.98 1.15 78.3
88-14
0.72 1.36 2.36 1.59 0.002 0.58 1.48 98.7
88-35
10.41 1.76 1.39 4.56 0.004 1.27 0.30 90.8
88-36
12.34 0.06 0.10 0.04 <0.001 0.60 2.50 93.2
88-37
1.11 0.10 0.08 2.84 <0.001 1.25 0.03 73.4
15.76 STRUCTURE ONLY 79.3
88-38
1.45 1.05 1.80 2.51 0.002 0.58 0.72 100
16.48 STRUCTURE ONLY 88.1
88-39
0.67 0.44 1.10 0.05 0.001 0.40 22.00 56.7
10.41 STRUCTURE ONLY 93.3
88-40 (COLLAR ON SECTION 1+61 N., AZ. ± 98°) AVERAGE GRADE
6.72 0.29 0.47 0.27 0.001 0.62 1.74 88.6
88-41 (COLLAR ON SECTION 1+61 N., AZ. ± 98°)
2.56 0.01 0.01 0.08 <0.001 1.00 0.13 91.6
7.72 STRUCTURE ONLY 83.8
1747 LEVEL
Note: Underground is not on section.
Sump
SECTION 2+32 N
SECTION 2+07 N
SECTION 1+84.5 N
SECTION 1+64 N
SECTION 1+39 N
SECTION 1+14 N
SECTION 0+90 N
SECTION 0+58.5 N
SECTION 0+30 N
REVISIONS
LEGEND
LITHOLOGY
Ct CHERT
D DOLOSTONE
M MUDSTONE
Sh SHALE
Ph PHYLLITE
St SILTSTONE
Qz QUARTZITE/ARENITE
C CONGLOMERATE
A ANDESITE
S SYENITE
MINOR COMPONENTS
d DOLOMITIC
(F) FOSSILIFEROUS
s SILICIFIED
a ANKERITIC
c CALCAREOUS
g CLAY/GOUGE
b BLEACHED
m MANGANESE
h HEMATITE
l LIMONITE
ph PHYLLITIC
st SILTY
cb CARBONACEOUS
MINERALIZATION
▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
■ GALENA +/- SPHALERITE +/- TETRAHEDRITE – MASSIVE
Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)
STRUCTURE
BRECCIA
FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
FAULT WITH DIP & DIP DIRECTION
FOLIATION & ANGLE TO CORE AXIS
BEDDING & ANGLE TO CORE AXIS
JOINTING
GEOLOGICAL CONTACT – OBSERVED, INFERRED
lam LAMINATED
STRATIGRAPHY
QUATERNARY
Overburden, glacial drift
CRETACEOUS AND (?) EARLY TERTIARY
A Dark green, fine grained mafic dyke
LATE DEVONIAN AND MISSIPPIAN
S Fine to medium grained syenite dyke
uDMs Black shale, chert grit, and chert conglomerate
SILURIAN, EARLY AND MIDDLE DEVONIAN
Ds(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
Dcb Carbonaceous dolostone, black, fine grained minor phyllite
Damphi Amphipora +/- stromatoporoid dolostone
Dph Phyllitic dolostone with bands of silicified dolostone
Ds Silicified dolostone, fine grained, serecitic
D Dolostone, massive, medium grained
ORDOVICIAN AND SILURIAN
OSsl Black, graptolitic shale, minor chert
LATE CAMBRIAN AND EARLY CAMBRIAN
u€Osiv Grey – buff calcareous phyllite; thinly laminated
u€Ob Dark green mafic flow or sill
EARLY CAMBRIAN
l€csl Grey calcareous mica schist and marble
(modified after Templeman-Kluit, 1977)
REFERENCE
In front of section
Behind section
Control Station
DRILL HOLE DATA
YM-88-5 (DRILL HOLE No.)
-80° (INCLINATION)
65.00 (LENGTH – metres)
ASSAY SEQUENCE
AVERAGE GRADE
HORIZ. WIDTH Ag (oz./ton) Pb (%) Zn (%) Au (oz./ton) Ag/Pb Pb/Zn RECOVERY (%)
NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.
CHANNEL SAMPLE DATA
Ag (oz./ton)
Pb (%)
Zn (%)
Au (ppb)
SAMPLE WIDTH (m)
SAMPLE No.
inches
centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY
TO ACCOMPANY REPORT BY B.P. FOWLER, P.GEOL., DATED DECEMBER 31, 1988
YUKON MINERALS – PERREX J.V.
KETZA PROJECT
GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10
Scale 1:500
No. 3 ZONE
ASSAY LONGITUDINAL SECTION
LOOKING N 70° E
DATE: NOVEMBER 28, 1988
TECH.: B.F.
DRAWN BY: POLARIS CONSULTING, R.H.
DWG. No. 3L-A1


SECTION 0+30 N.
SECTION 0+58.5 N.
SECTION 0+90 N.
SECTION 1+14 N.
SECTION 1+39 N.
SECTION 1+64 N.
SECTION 1+84.5 N.
SECTION 2+07 N.
SECTION 2+32 N.
1200 ELEV.
1750 ELEV.
1800 ELEV.
1850 ELEV.
1900 ELEV.
1950 ELEV.
LEVEL
1747
BLOCK 88-1
BLOCK 88-2
BLOCK 88-3
BLOCK 88-4
BLOCK 88-5
BLOCK 88-6
BLOCK 88-7
BLOCK 88-8
BLOCK 88-9
BLOCK 88-10
BLOCK 88-12
BLOCK 88-13
ATEMAKE BASE
88-1
88-2
88-3
88-4
88-5
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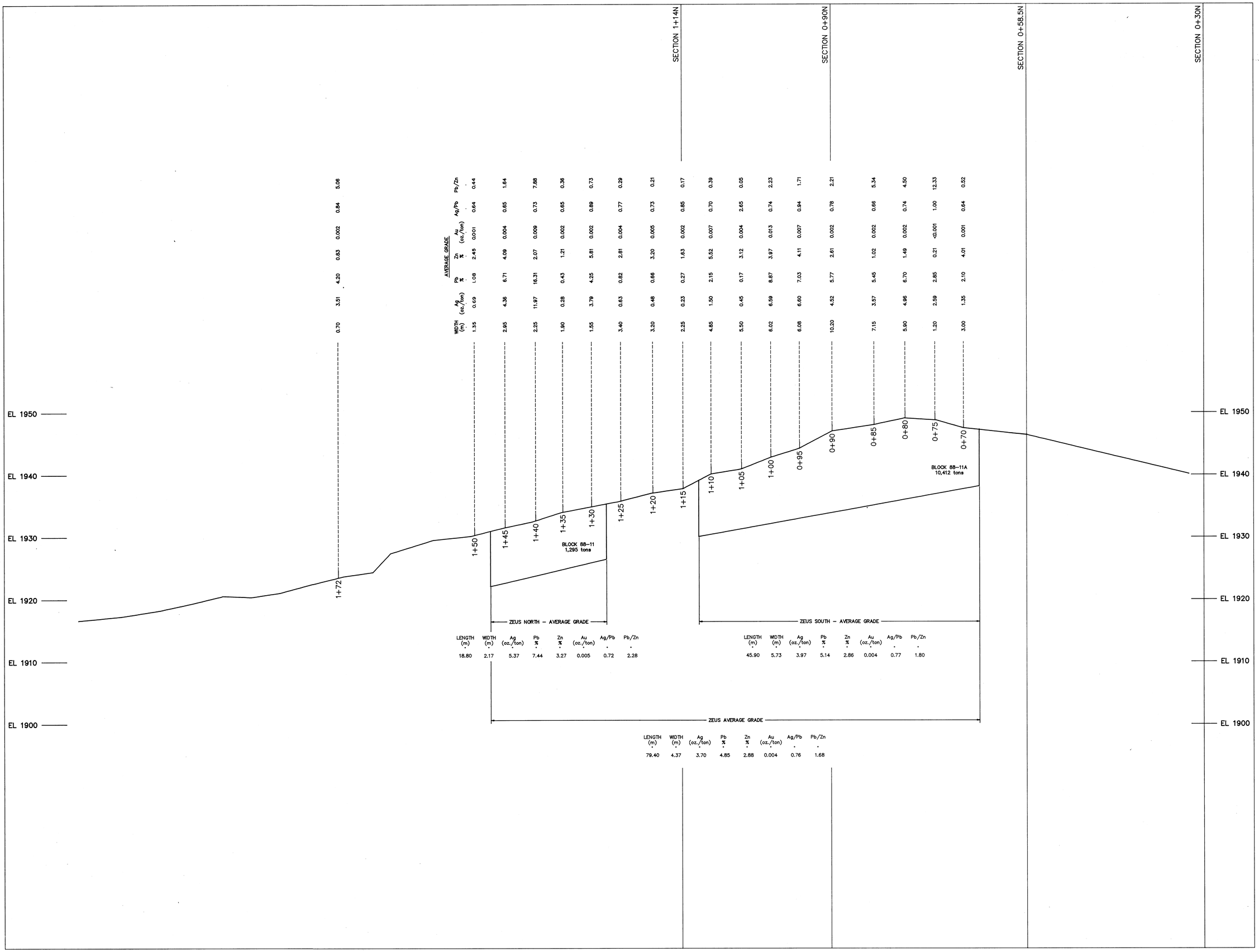

TO ACCOMPANY REPORT BY B.P. FOWLER, P. GEOL., DATED DECEMBER 31, 1988

REVISIONS

LEGEND

LITHOLOGY

Ct	CHERT
D	DOLOSTONE
M	MUDSTONE
Sh	SHALE
Ph	PHYLLITE
St	SILTSTONE
Qz	QUARTZITE/ARENITE
C	CONGLOMERATE
A	ANDESITE
S	SYENITE

MINOR COMPONENTS

d	DOLOMITIC
(F)	FOSSILIFEROUS
s	SILICIFIED
a	ANKERITIC
c	CALCAREOUS
g	CLAY/GOUGE
b	BLEACHED
m	MANGANESE
h	HEMATITE
l	LIMONITE
ph	PHYLLITIC
st	SILTY
cb	CARBONACEOUS

inches / centimetres

This reference scale bar is applicable to the original image. It will scale at the same rate as the image if you are using it as a reference tool. The magnification

MINERALIZATION

- ▲ GALENA +/- SPHALERITE +/- TETRAHEDRITE IN BRECCIA
- ● GALENA +/- SPHALERITE +/- TETRAHEDRITE REPLACEMENT, FRACTURE FILLING
- ■ GALENA +/- SPHALERITE +/- TETRAHEDRITE - MASSIVE

Sp SPHALERITE
py PYRITE
VZ VEIN ZONE; massive, clotted, galena, +/- tetrahedrite +/- sphalerite +/- chalcopyrite +/- pyrite +/- scorodite +/- malachite +/- azurite +/- quartz/iron carbonate gangue
OZ OXIDE ZONE; gouge/breccia zone with >30% limonite matrix +/- massive clotted galena; sphalerite, pyrite
GZ GALENA ZONE; >1% clotted, disseminated galena +/- sphalerite; <30% limonite
SZ SPHALERITE ZONE; >1% clotted, disseminated sphalerite +/- galena; <30% limonite
PZ PYRITE ZONE; massive, clotted pyrite
QV QUARTZ VEIN; (no visible sulfides)

STRUCTURE

- △ BRECCIA
- FAULT WITH SENSE OF DISPLACEMENT, DOWN BLOCK
- FAULT WITH DIP & DIP DIRECTION
- 35 FOLIATION & ANGLE TO CORE AXIS
- 30 BEDDING & ANGLE TO CORE AXIS
- JOINTING
- GEOLOGICAL CONTACT - OBSERVED, INFERRED
- lam LAMINATED

STRATIGRAPHY

QUATERNARY
- Overburden, glacial drift

CRETACEOUS AND (?) EARLY TERTIARY
- Dark green, fine grained mafic dyke

LATE DEVONIAN AND MISSIPPIAN
- Fine to medium grained syenite dyke
- uDMs Black shale, chert grit, and chert conglomerate

SILURIAN, EARLY AND MIDDLE DEVONIAN
- Dq(Qz+Ph) Silicified dolostone with bands of black quartzite, grey quartzite & cross bedded siltstone or phyllite
- Dcb Carbonaceous dolostone, black, fine grained minor phyllite
- Damph Amphipora +/- stromatoporoid dolostone
- Dph Phyllitic dolostone with bands of silicified dolostone
- Ds Silicified dolostone, fine grained, sereciticc
- D Dolostone, massive, medium grained

ORDOVICIAN AND SILURIAN
- OSsl Black, graptolitic shale, minor chert

LATE CAMBRIAN AND EARLY CAMBRIAN
- uEOslv Grey - buff calcareous phyllite; thinly laminated
- uEOb Dark green mafic flow or sill

EARLY CAMBRIAN
- ECcsl Grey calcareous mica schist and marble

(modified after Templeman-Kluit, 1977)

NOTE:
Elevations are Geodetic.
All distances and elevations are in metres unless noted.

YUKON MINERALS - PERREX J.V.

KETZA PROJECT

GROUNDHOG CREEK, YUKON TERRITORY
LAT. 61° 37' N., LONG. 132° 52' W., NTS 105 F/10

Scale 1:250

METRES 0 1 2 3 4 5 10 15 20 25 30 METRES
FEET 0 5 10 15 20 25 50 75 100 FEET

ZEUS ZONE
LONGITUDINAL & RESERVE SECTION
LOOKING N 70° E

DATE: NOVEMBER 26, 1988 | TECH.: B.F. & R.H. | DWG. No. ZL-ARI

DRAWN BY: WRIGHT, HILLYARD, PARRY, & FULLER