

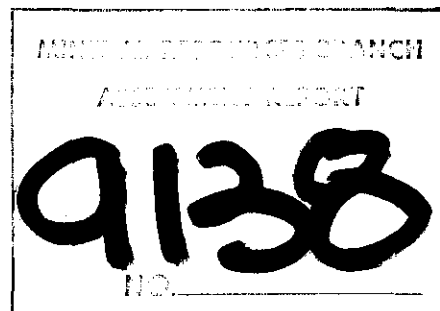
DIAMOND DRILLING REPORT ON THE ELF GROUP

Akie River Area
Omineca Mining Division

N.T.S. 94-F-7

Latitude: 57° 18' N

Longitude: 124° 42' W



By:

W.J. Roberts

CYPRUS ANVIL MINING CORPORATION

June 11, 1981

Field Work Done During The Period: June - September, 1980

PLEASE NOTE: THIS REPORT IS TO BE KEPT
CONFIDENTIAL FOR ONE YEAR. IT WILL BE
AVAILABLE TO THE PUBLIC ON June 17/82

BRITISH COLUMBIA MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

MINERAL RESOURCES BRANCH

ASSESSMENT REPORT COVER SHEET

Name _____ Fig. _____ No. _____

Mining Inventory Nos. _____ NTS _____

Lat. 57° 19.5' Long. 124° 45' NTS 94F/7E & W

Mining Division Omineca Location Approx 39 km S.W.

to the junction of Akie R & Finlay R, with
Akie R. flowing through the Nth Tip of the property,

Claims (Central Records) Elf 1 & 2 (6 units), Elf 3 (4), Elf 4

Claims (total) (10), Elf 5 (4), Elf 6 (10), Elf 7 (4), Elf 8
(18), Elf 9 (8), Elf 10 (8), Elf 11 (12), Elf 12 (1), Elf
13 (20), Elf 14 (20), Elf 15 (2), Elf 16 (5), Elf 17 (3)

Owner 1. CYPRUS ANVILL MINING CORPORATION 2. Elf 18 (4), Elf 19 (4)

Address 300-355 Burrard Street, Vancouver Elf 21 (3)

Operator 1. Same as Above 2. _____

Address _____

Owner/Operator 3. _____

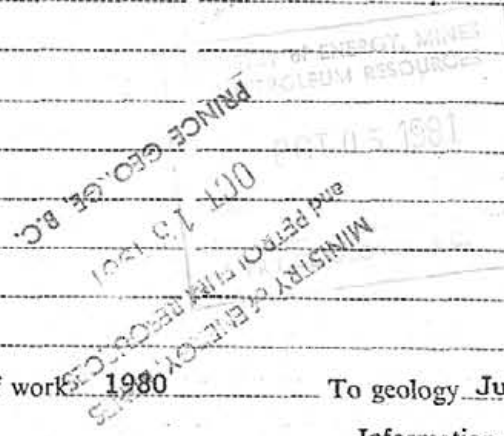
Metals _____

Geological description Underlain by Lower Devonian to Mississippian sediments
of the Elf Group: Wameford Formation of shale with minor
metatam; Coarcted Formation of shale, carbonaceous shale with
a basite-sulfide horizon near its base; and Paul River siltstone and

References 1271, 1308, 8042 / graphitic shale

Work done Drilling

Type	Amount	Claims Worked On
<u>DIAD: A101</u>	<u>3 m; 10 holes; 14 q, 14</u>	<u>Elf 2, 4, 5</u>



Author(s) W.J. Roberts

Aff. date June 17, 1981 Year of work 1980 To geology July 13, 1981

Attention _____ Information class 3

Comments OK

Value work done (from report) 665,484.47 Name of PAC Account _____ Amount _____

Value of work approved 665,484.47 Cyprus Anvill Mining Corp = 419,184.47

Value claimed (from statement) 246,300.00

Value credited to PAC account 419,184.47

Value debited to PAC account _____

Accepted [Signature] Date 3/9/81 Report No. 81-#402 9138

NTS 94F/7E & W

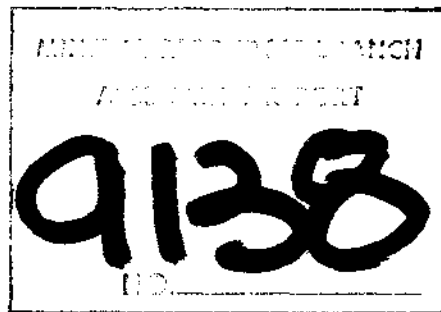
DIAMOND DRILLING REPORT ON THE ELF GROUP

Akie River Area
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By:

W.J. Roberts

CYPRUS ANVIL MINING CORPORATION

June 11, 1981

Field Work Done During The Period: June - September, 1980

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(ii)

LIST OF CLAIMS - ELF GROUP

<u>Claim No.</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Recording Date</u>
1	1215	6	June 23, 1978
2	1216	6	June 23, 1978
3	1217	4	June 23, 1978
4	1218	10	June 23, 1978
5	1219	4	June 23, 1978
6	1220	10	June 23, 1978
7	1221	4	June 23, 1978
8	1222	18	June 23, 1978
9	1223	8	June 23, 1978
10	1224	8	June 23, 1978
11	1225	12	June 23, 1978
12	1226	1	June 23, 1978
13	1247	20	July 18, 1978
14	1248	20	July 18, 1978
15	1249	2	July 18, 1978
15 ?	1295	9	August 1, 1978
16	1804	5	June 22, 1979
17	1805	3	June 22, 1979
18	1951	4	August 13, 1978
19	2898	4	July 11, 1980
21	3180	3	September 11, 1980

Cyprus Anvil Mining Corporation

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Vancouver, British Columbia
V6C 2G8
Telephone (604) 687-2586

Telex 04508594

INTRODUCTION

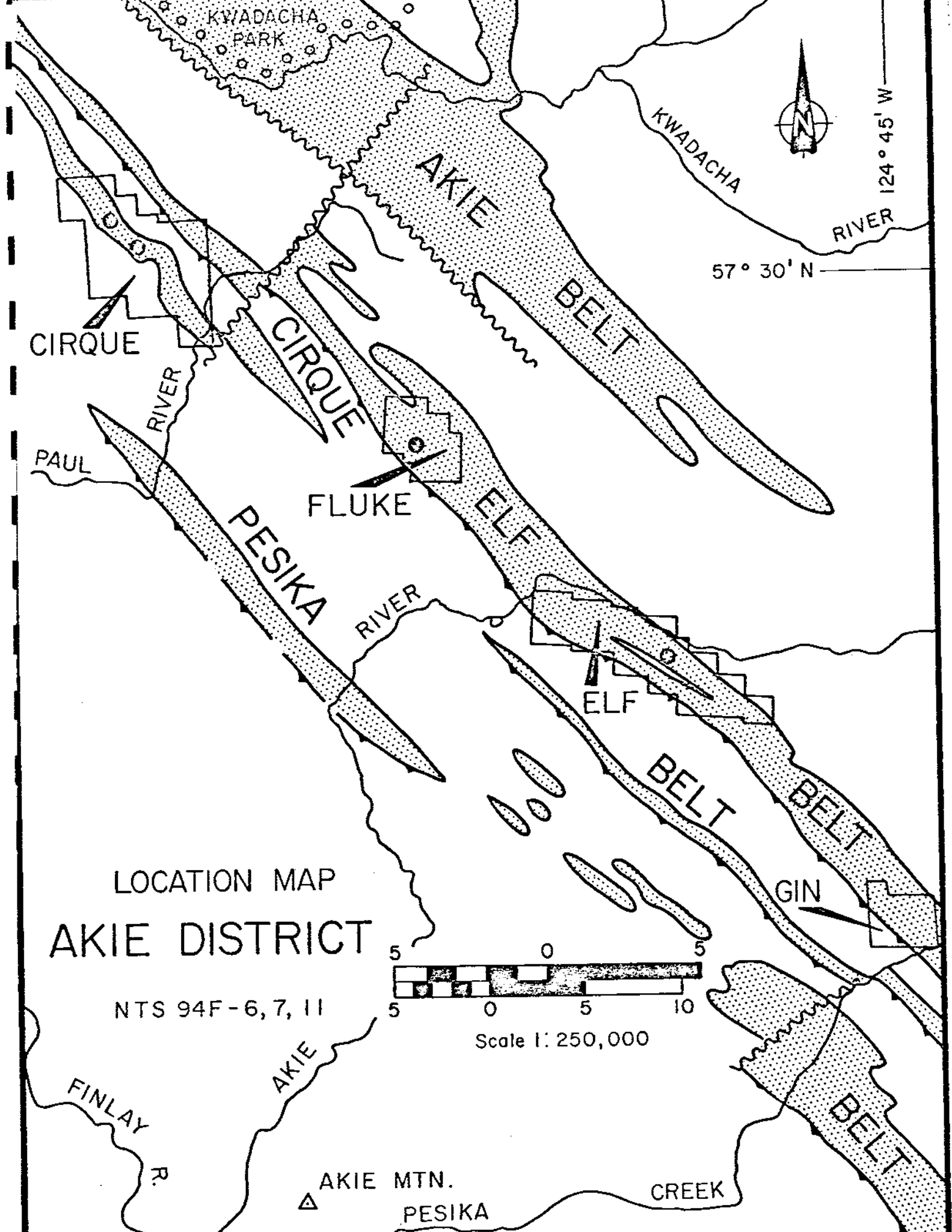
The ELF GROUP, totalling 161 units, was staked in early June, 1978, to cover several moderate lead-zinc anomalies in tributaries of the Akie River and a float occurrence of high-grade stratiform barite-lead-zinc mineralization in a thick succession of Upper Devonian "Black Clastics" which host potentially economic lead-zinc deposits on the nearby Cirque Group. During 1979 a high grade showing of stratiform barite-sphalerite-galena mineralization was located in Elf Creek and drill tested by four holes late in the fall. Results of this program were encouraging enough to propose a 3000 meter drilling budget in 1980.

In 1980 ten holes, totalling 4101.3 meters, were completed in the area of the showing with little success of a major high grade intersection.

LOCATION AND ACCESS

The ELF GROUP is located in the Williston Lake area in northern British Columbia. The claims cover the south slope of the Akie River valley between the river and interfluvial ridge to the south (Figure 1). The center of the claim group, located

CYPRUS ANVIL



KWADACHA
PARK

KWADACHA
RIVER



124° 45' W

57° 30' N

AKIE
BELT

CIRQUE

CIRQUE

RIVER

PAUL

FLUKE

ELF

PESIKA

RIVER

ELF

BELT

GIN

BELT

LOCATION MAP AKIE DISTRICT

NTS 94F-6, 7, 11



Scale 1: 250,000

FINLAY
R.

AKIE

AKIE MTN.
PESIKA

CREEK

at latitude $57^{\circ} 124^{\circ} 42'$ W, is roughly 35 kilometers on a bearing of 035 degrees from Akie Mountain.

Field work on the ELF GROUP was conducted with a helicopter borne program based at Finbow, 40 kilometers to the northwest. Logistical support was provided by fixed wing aircraft based at Mackenzie, 250 kilometers to the south.

REGIONAL GEOLOGY

Lower Devonian to Mississippian rocks are preserved in a series of synformal fold keels and thrust plates that form four sinuous, semi-continuous, northwest-trending belts. This package overlies and is overthrust by Upper Cambrian to Silurian strata belonging to the Kechika and Road River Groups. The Devonian to Lower Mississippian section can be split into four main subdivisions. The Lower to Middle Devonian limestones and shales are characterized by massive, grey, fossiliferous limestone (Kwadacha and Pesika Reefs), limestone debris flows and chert breccias that interfinger laterally with graptolitic shales, cherts and distal calcareous turbidites (Paul River Formation).

The Akie Formation comprises rusty brown and grey-weathering shale, silty shale and siliceous shale which unconformably

overlie the lower to Middle Devonian strata. Some shales which have been mapped as Akie Formation may be facies equivalents of the Lower to Middle Devonian units, or basal shales of the Gunsteel Formation. An unconformity between the top of the Silurian and the base of the Upper Devonian is indicated in drill core by the conglomeratic, reworked top of the Silurian Siltstone. The duration and regional nature of the unconformity are poorly understood. The problem is complicated by depositional thickness and facies changes in Lower to Middle Devonian strata and lack of paleontologic control.

The Gunsteel Formation consists of silvery-grey weathering, black, siliceous, carbonaceous shale and chert, and overlies the Lower to Middle Devonian package. The Gunsteel Formation is host for all known barite-sulphide mineralization and most of the known stratiform barite deposits in the region.

The Warneford Formation is Upper Devonian to Lower Mississippian submarine fans of chert and shale conglomerates in the west interbedded to the east with silty distinctly laminated shales which have thin dolomitic siltstone interbeds. The Warneford Formation is interbedded with and overlies the Gunsteel Formation.

Elf Group Table of Geological Formations

WARNEFORD FORMATION

- 9B - soft grey foliated shale with indistinct siltstone laminae
- 9E - dark grey shale with very few siltstone interbeds
- 9F - speckled siltstone, minor grey shale

GUNSTEEL FORMATION

- 8U - soft phyllitic grey shale
- 8T - black laminated shale with <1 cm light grey siltstone turbidites
- 8S - massive bedded black shale often with carbonate nodules and varying amounts of laminar banded pyrite
- 8R - massive bedded black shale with >5% laminar banded pyrite
- 8B - massive white to light grey crystalline barite with <20% sulphides
- 8P - massive fine grained laminated pyrite
- 8D - black very siliceous shale

PAUL RIVER FORMATION

- 6S - black siliceous shale with crinoidal limestone debris flows
- 6A - black graphitic shale

SILURIAN SILTSTONE

- 5D - light grey variably bioturbated to laminated dolomitic siltstone

ROAD RIVER FORMATION

- 4J - dark grey massive to flaggy bedded limestone

DIAMOND DRILLING PROGRAM

One Longyear Super 38 drill, contracted from J.T. Thomas of Smithers, B.C., was used for the 1980 drill program. All coring was completed using NQ equipment. Problems were encountered in long holes with excessive drill hole deviation and gouge zones related to normal faults. Drill holes were all surveyed at 50 to 100 meter intervals using Sperry-Sun, down-hole magnetic surveying equipment. All core from the drilling program is stored on the property in a large field along the Akie River.

Four sections were constructed at a scale of 1:1000 at 030 degrees in the Elf Creek valley. The locations of drill holes were determined by topography and projected onto the sections. Projection problems involved drill hole deviation, several faults oblique to the section and bedding trends not parallel to section projections.

Section 95 W

Drill holes 80-E-08 and 80-E-09 were collared approximately 700 meters southeast and along strike from the surface exposure of stratiform barite-lead-zinc mineralization. As may be noted on Map No. 3, both drill holes intersected an overturned section of Warneford silty shale and siltstone, Gunsteel Formation,

unit 8, and Paul River Formation. The Gunsteel largely consists of Pregnant Shale, unit 8S, with less than 20 meter intervals of laminar banded pyrite. Massive pyrite, barite and galena-sphalerite mineralization was notably absent in both holes. Horizons of Laminar Banded pyrite appear to be the distal facies of the surface exposure of barite-sulphide mineralization.

Section 99 W

Section 99 W, constructed using drill holes 80-E-05 and 80-E-02, also outlines an overturned sequence of Gunsteel Formation interfingering with Warneford siltstones overlying a 30 meter interval of Paul River Formation, unit 6. The section of Gunsteel Formation, unit 8, with a true thickness of approximately 100 meters, contains several horizons of laminar banded pyrite of which two were assayed. Both assays yielded high zinc-lead ratios with high silver values. Sampling of all laminar banded pyrite in hole 80-C-05 will be completed during the 1981 field season.

Section 102 W

Drill hole 80-E-10 was collared directly below the known showing on grid line 102 W and intersected five meters of white crystalline barite at a depth of 430 meters. Although visible

coarse crystalline galena was visible in the barite, assays yielded very low grades of lead, zinc and silver. A 20 centimeter bed of barite intersected at 401 meters contained six per cent combined lead-zinc with 18 grams per tonne silver may also be the facies equivalent of the high grade surface mineralization. Although there is a notable increase of laminar banded pyrite in hole 80-E-10, only the baritic sections were assayed in 1980. Further assaying will be completed in 1981.

Drill hole 80-E-01 was placed 800 meters northeast of the known showing to test for mineralization in what was thought to be the shallow core of the Elf Syncline. As one may note, the hole terminated in overlying Warneford Formation at a depth of 531.3 meters.

Section 105 W

Drill holes 80-E-03 and 80-E-04 were collared in Road River Formation and attempted to intersect west dipping mineralization below the thrust panels. Both holes terminated in fault gouge before reaching the proposed mineralized horizon near the base of the Gunsteel Formation.

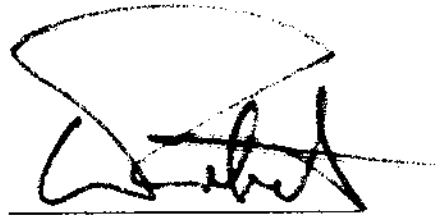
A second attempt to test for a strike projection of mineralization to the northwest of the showing was undertaken later in the

season. Both drill holes 80-E-06 and 80-E-07 intersected barren Pregnant Shale, unit 8S overlying the Paul River Formation.

CONCLUSIONS AND RECOMMENDATIONS

The 1980 drilling program was not successful in delineating potentially economic lead-zinc-silver mineralization exposed in the western overturned limb of the Elf Syncline. Since most of the holes, with the exception of 80-E-10, tested the strike projections of mineralization, the 1981 recommended drilling program will test for the down dip rate of mineralization between grid lines 100 and 104 west.

Respectfully submitted,

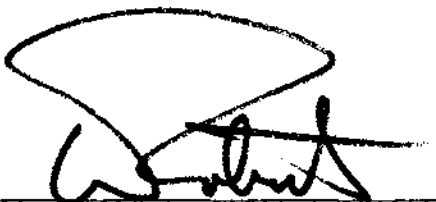
A handwritten signature in black ink, appearing to read 'W. J. Roberts', is written over a horizontal line. The signature is stylized and cursive.

W. J. Roberts

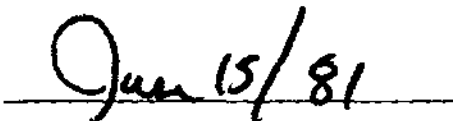
STATEMENT OF QUALIFICATIONS

I, WAYNE J. ROBERTS, Geologist, with business address in Vancouver, British Columbia, and residential address in Coquitlam, British Columbia, hereby certify that:

- 1) I graduated from the University of British Columbia in 1968 with a BSc majoring in Geology.
- 2) From 1968 to the present I have been actively engaged as a geologist in mineral exploration in British Columbia and the Yukon Territory.
- 3) I am a Fellow of the Geological Association of Canada.
- 4) I personally supervised the field work on the ELF GROUP and have interpreted all data resulting from this work.



WAYNE J. ROBERTS



DATE

SUMMARY OF COSTS

Appendix II

Salaries and Wages:

G. Fisher	June 22 - 27	6 days @ \$43.70/day		\$ 262.20
J. Lucas	June 22 - 31	10 days @ \$66.50/day		665.00
R. Bray	June 11 - 14, 29, 30	6 days @ \$75.00/day		450.00
C. Jefferson	June 17 - 21	5 days @ \$76.66/day	\$ 383.30	
	August 17, 21 - 27	8 days @ \$76.66/day	<u>613.28</u>	996.58
W. Roberts	June 17	1 day @ \$145.24/day	145.24	
	Aug. 4, 16-22, 27-29	11 days @ \$145.24/day	1,597.64	
	Sept. 3 - 7	6 days @ \$145.24/day	<u>871.44</u>	2614.32
M. Biedler	July 9 - 13	5 days @ \$44.19/day	220.95	
	Aug. 3-5, 15-16, 18-20, 22, 23, 26, 31	12 days @ \$44.19/day	\$ 530.28	
	Sept. 7 - 10	4 days @ \$44.19/day	<u>176.76</u>	927.99
K. Borthwick	July 9 - 11, 13 - 16	7 days @ \$43.55/day		304.85
N. Laube	July 8 - 11, 13 - 16	8 days @ \$40.45/day	\$ 323.60	
	Aug. 2-4, 18-20, 22-24	9 days @ \$54.16/day	<u>487.44</u>	811.04
D. Kilby	July 15 - 30	15 days @ 145.24/day		2178.60
P. Bates	Aug. 15 - 22	8 days @ \$46.82/day		374.56
B. Youngman	Aug. 3, 8 - 10	4 days @ \$53.32/day		213.28

TOTAL SALARIES \$ 9798.42

Diamond Drilling:

<u>Drill Hole</u>	<u>Claim</u>	<u>Depth</u>	<u>Cost</u>	
80-E-01	E1f 2	531.3 m x	\$ 104.32/m =	\$ 55,425.22
80-E-02	E1f 2	565.7 m x	104.32/m =	59,013.82
80-E-03	E1f 4	203.6 m x	104.32/m =	21,239.55
80-E-04	E1f 4	327.0 m x	104.32/m =	34,112.64
80-E-05	E1f 2	484.6 m x	104.32/m =	50,553.47
80-E-06	E1f 4	202.4 m x	104.32/m =	21,114.37
80-E-07	E1f 4	286.8 m x	104.32/m =	29,918.98
80-E-08	E1f 5	385.3 m x	104.32/m =	40,194.50
80-E-09	E1f 5	655.9 m x	104.32/m =	68,423.49
80-E-10	E1f 4	458.7 m x	104.32/m =	47,851.58
		<hr/>		
		4101.3 m x	\$104.32/m =	\$ 427,847.62

Drill Site Preparation

McCrorry Associates - 2 men @ \$200/day/man

July - 6 days

August - 12 days

September - 5 days

October - 12 days

35 days @ \$400 = \$ 14,000

Field Equipment and Supplies \$ 15,086.99

Camp Maintenance 635 man days x \$20/man/day = \$ 12,700.00

Fuel:

Helicopters	- 9484 gallons @ \$ 2.50/gal.	\$ 23,710	
Diamond Drill and Pumps	- 9180 gallons @ \$ 2.00/gal.	<u>18,360</u>	
			\$ 42,070

Rotary Wing:

Viking Helicopters - two - 5000 aircraft

June	- 53.1 hours
July	- 70.0 hours
August	- 87.7 hours
September	- 34.0 hours

Total 244.8 hours x \$ 300/hour = \$ 73,440

Shirley Helicopters - one - 204 aircraft

June	- 9.1 hours
July	- 20.1 hours
August	- 21.6 hours
September	- 11.6 hours

Total 62.4 hours x \$ 600/hour = \$ 37,440 \$ 110,880

Fixed Wing:

20 Beech trips from Mackenzie over the three month period

20 x 330 miles x \$ 1.70/mile = \$ 11,220.00

Miscellaneous Transportation:

Plane fares, truck rentals, air freight, etc. \$ 16,726.53

District Expense:

Expediting, etc. \$ 4,080.91

Drafting:

C.L. Cory - 24 hours @ \$16.00/hour = \$ 384.00

Report Writing:

W.J. Roberts - 3 days @ \$230/day = \$ 690.00

TOTAL DIRECT EXPENDITURES \$ 665,484.47

Cyprus Anvil Mining Corporation

300, 355 Burrard Street
Vancouver, British Columbia
V6C 2G8
Telephone (604) 687-2586

Telex 04508594


Appendix III

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, WAYNE J. ROBERTS, Geologist, Cyprus Anvil Mining Corporation, of Vancouver, British Columbia, do hereby state, that, to the best of my knowledge and belief the Statement of Costs in this report (Report of the ELF GROUP Diamond Drilling) is a true account of expenditures incurred from exploration on the ELF property.



WAYNE J. ROBERTS



DATE

CYPRUS ANVIL

DIAMOND DRILL LOGS

A P P E N D I X I V

CYPRUS ANVIL MINING CORPORATIONDIAMOND DRILL CORE LOG

Hole Number: 80-E-01 Fabric Orientation Diagram: _____

Project: GATAGA

Location: ELF GROUP, 94-F-7

Claim: ELF #2

Terr. Plane
Co-ords.: 6 353 500 N

397 640 E

Grid
Co-ords.: 103+50W, 206+30N

Inclination: Vertical All symmetry determinations looking
NW with S₁ dipping 74°

Elevation: 1050 m NE with dip azimuth 030.

Total Depth: 531.3 m

Purpose: Test for possible mineralization beneath Akie Shale

Logged by: C. Jefferson Date(s) Logged: _____

Drilling Contractor: J.T. Thomas

Core:	Size	From	To	Collar Cased and Capped:
<u>NQ</u>	<u>0</u>	<u>531.3</u>		<u>_____</u>
<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Started: June 3/80 Completed: June 14/80

DDH 80E01
2 8

Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: June 14 Logged By: C.W.J.

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
		00		1214				overburden		
				1250			91B	coarsely siltstone		
				11590			91B	shale + interbedded siltstone		
				11660			91B	fault zone		
				12141			91B	grey shale + interbedded siltstone		
				12550			91B	grey shale + abundant siltstone interbeds		
				131252			91B	grey shale + interbedded siltstone		
				13500			91B	grey shale + interbedded siltstone associated with minor diffuse pyritic laminae		
				13950			91B	dark grey shale with siltstone interbeds < 1m.		
				14220			91B	grey shale + < 1m siltstone interbeds with sparse pyrite nodules < 1cm.		
				14720			91B	massive grey shale + siltstone < 1m		
				14880			91B	grey shale + interbedded siltstone < 3m.		
				15200			91E	black silty shale with several siltstone interbeds		
				15313			91E	soft black foliated shale		
								————— END OF HOLE —————		

CYPRUS ANVIL MINING CORPORATION

DIAMOND DRILL CORE LOG

Hole Number: 80-E-02

Fabric Orientation Diagram:

Project: GATAGA

Location: ELF CLAIM GROUP

Claim: ELF #2

Terr. Plane Co-ords.: 6 352 680 N

397 570 E

Grid Co-ords.: _____

Inclination: vertical Zenith 180° (less than)

All symmetry determinations looking

_____ with _____ dipping

Elevation: 1085 m (not surveyed)

_____ with dip azimuth _____.

Total Depth: 565.7 m

Purpose: To test mineralization potential of proposed syncline which contains showing.

Logged by: C. Jefferson

Date(s) Logged: June 19, 1980

Drilling Contractor: J.T. Thomas

Core: Size From To Collar Cased and Capped: _____

NQ 0 565.7 m

Started: June 15/80

Completed: June 27/80

Lithologic Log

Date: June 27/80 Logged By: CWT

Code	From	To	Recov.	No.	Unit	Description						
1	10	14	16	20	22	24	26	28	30	34	35	
		00		450								overburden
				612								possible siliceous siltstone gravel.
				667						9E		soft grey silty shale
				11545						9B		grey calcareous shale + siltstone laminar, minor chert
				11884						9T		well foliated dark grey shale with calcareous siltstone laminae
				12043						9T		dark grey shale, minor siltstone laminae
				13283						9F		speckled siltstone minor grey shale
				13485						8S		massive black siliceous shale
				13810						8S		massive black shale with siliceous limestone concretions
				14058						8S		massive black siliceous shale
				14324						9F		speckled siltstone
				14660						8S		massive black siliceous shale
				14933						9F		calcareous speckled siltstone with minor interbedded grey shale
				14950						8S		massive black shale with diffuse beds of calcareous siltstone
				15457						9F		largely speckled siltstone with interbedded black shale
				15657						8S		massive black shale
												————— END OF HOLE —————

CYPRUS ANVIL MINING CORPORATIONDIAMOND DRILL CORE LOG

Hole Number: 80-E-03 Fabric Orientation Diagram: _____

Project: GATAGA

Location: ELF CLAIM GROUP

Claim: ELF #16

Terr. Plane
Co-ords.: 6 352 865 N

397 010 E

Grid
Co-ords.: _____

Inclination: -60° at 030° All symmetry determinations looking
NW with _____ dipping

Elevation: 1360 m (not surveyed) _____ with dip azimuth _____.

Total Depth: 203.6 m

Purpose: To test strike extension of Elf surface showing

Logged by: G. Simpson Date(s) Logged: _____

Drilling
Contractor: J.T. Thomas Core: Size From To Collar Cased
and Capped: _____

NQ	0	197.5
BQ	197.5	203.6

* BQ & NQ rods stuck in hole

Started: June 28/80 Completed: July 8/80

CYPRUS ANVIL MINING CORPORATION

DIAMOND DRILL CORE LOG

Hole Number: 80-E-04

Fabric Orientation Diagram: _____

Project: GATAGA

Location: ELF GROUP

Claim: ELF #16

Terr. Plane Co-ords.: 6 352 865 N

397 010 E

Grid Co-ords.: _____

Inclination: -70° at 030°

All symmetry determinations looking
NW with S₁ dipping

Elevation: 1360 m

with dip azimuth _____.

Total Depth: 327.0 m (not surveyed)

Purpose: To test strike extension of Elf surface showing

Logged by: G. Simpson/D. Kilby Date(s) Logged: _____

Drilling Contractor:	Core:	Size	From	To	Collar Cased and Capped:
<u>J.T. Thomas</u>		<u>NQ</u>	<u>0</u>	<u>163.7</u>	_____
		<u>BQ</u>	<u>163.7</u>	<u>327.0</u>	_____

Started: July 9, 1980 Completed: July 19, 1980

DDH 8.0.E.0.4
2 8

Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: July 19/80 Logged By: JGS, D.B. Kirby

Code	From				To				Recov.	No.	Unit	Description
	1	10	14	16	20	22	24	26				
			100		1463							overburden
					1500						4J	siliceous limestone turbidites in black shale
					1637						4J	Transition to undulating siltstone
					2085						5ID	light grey bioturbated siltstone
					2366						5ID	grey dolomitic siltstone interbedded with black shale < .5m.
					2745						5ID	grey laminated dolomitic siltstone
					2795						5ID	dark grey silty shale with angular blocks of siltstone.
					2885						5ID	grey bioturbated siltstone
					2922						5ID	chaotic breccia of siltstone in shale matrix
					2968						5ID	laminated siltstone.
					2986						5ID	brecciated (tectonically) siltstone with calcite fillings
					3007						1-FR	fault zone with black clay, and brecciated siltstone fragments < 2m.
					3127						18IS	black massive weakly laminated siliceous black shale with minor pyrite laminae.
												— END OF HOLE —

CYPRUS ANVIL MINING CORPORATION

DIAMOND DRILL CORE LOG

Hole Number: 80-E-05

Fabric Orientation Diagram:

Project: GATAGA

Location: ELF GROUP

Claim: ELF #2 at collar into ELF #4

Terr. Plane
Co-ords.: 6 352 680 N

397 570 E

Grid
Co-ords.: _____

Inclination: -60° at 240° Az.

All symmetry determinations looking

NW with _____ dipping

Elevation: 1085 m (not surveyed)

_____ with dip azimuth _____.

Total Depth: 484.6 m

Purpose: To test down-dip extension of Elf surface showing

Logged by: _____ Date(s) Logged: _____

Drilling Contractor: J.T. Thomas Core: Size From To Collar Cased and Capped: _____

(80-E-05) NQ 0 44.8

(80-E-05A) NQ 0 484.6

Started: July 19/80 Completed: Aug. 1/80

DDH 80.E.05
2 8

Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: Aug/81 Logged By: D. Kilby, W. Roberts

Code	From				To				Recov.	No.	Unit	Description
	1	10	14	16	20	22	24	26				
			00		60	8						overburden
					71	2					9B	dark grey, weakly laminated shale
					75	0					87	Dominated black shale
					115	70					85	massive, poorly laminated black shale with large pyrite and septaria carbonate nodules < 20cm
					120	14					85	massive competent black shale, now to weakly laminated, minor pyrite nodules with carbonate rim - several fault zones within section composed of black claystone
					122	7					85	massive competent black shale with large septaria carbonate nodules.
					123	15					85	black shale as above with nodular carbonate layers < 1cm.
					128	18					85	black shale with increased siliceous laminae and associated minor fine pyrite laminae
					128	24					89	massive laminated fine grained pyrite
					129	15					82	massive black shale with < 20% fine laminae banded pyrite
					130	23					85	competent massive black shale, with minor permian banded pyrite
					130	15					82	laminar banded pyrite in black shale est. 40% pyrite.
					136	52					85	massive black shale with minor pyrite laminae and several limestone nodules.
					136	58						fault zone - black gorges
					137	20					82	black shale with 20-30% laminae banded pyrite
					138	28					85	black siliceous shale with several 25 to 1 meter interval of laminae banded pyrite.
					140	4					85	black shale with only minor pyrite, minor blebbing bands.

DDH 2 80E05 8

Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: Aug/80 Logged By: D. Kelly, W. Roberts

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
	1400	4	1408	0						16S	dark grey - black shale with lenticles debris flows and minor pyrite laminae.
			1417	4						16S	black shales with limestone nodules < 5cm associated with veins of pyrite.
			1419	9						16S	dark grey shale with limestone lenticles.
			1471	6						6S	black shale with abundant grey truncated calcareous siltstone beds and several large lenticles nodules < 20cm.
			1481	6						15D	laminated dolomitic siltstone.
											— END OF HOLE —

CYPRUS ANVIL MINING CORPORATIONDIAMOND DRILL CORE LOG

Hole Number: 80-E-06 Fabric Orientation Diagram: _____

Project: GATAGA

Location: ELF CLAIM GROUP

Claim: ELF #4

Terr. Plane Co-ords.: 6 353 160 N

397 090 E

Grid Co-ords.: _____

Inclination: -45° at 211°Az. All symmetry determinations looking
_____ with _____ dipping

Elevation: 1255 m _____ with dip azimuth _____.

Total Depth: 202.4 m

Purpose: To test strike extension of Elf showing.

Logged by: J.T. Thomas Date(s) Logged: _____

Drilling Contractor: _____ Core: Size From To Collar Cased and Capped: _____

Core	Size	From	To	Collar Cased and Capped
	NQ	0	202.4	

Started: Aug. 2/80 Completed: Aug. 7/80

Code	From		To		Recov.		No.		Unit	Description			
	1	10	14	16	20	22	24	26			28	30	34
			10	0									overburden
				6	10	0				B5			siliceous black shale with sparse carbonate nodules < 10cm.
				9	11	4				BT			black siliceous shales with minor calc. siltite tabularites < 2cm.
				11	10	0				B5			- black siliceous shale, minor nodules.
				11	09	9				BT			- black shale with diffuse light grey siltstone laminations.
				11	2	4	9			B5			- black massive shale with < 1mm pyrite nodules in layers < 1cm every .3 to .5m.
				11	5	0	1			B5			- black massive shale, minor diffuse laminae band pyrite
				11	8	3	5			B5			- black siliceous shale, minor distinct pyrite nodules, several large carbonate nodules with disseminated pyrite.
				11	8	9	9			B5			- black siliceous shale with ovoidal limestone debris flows.
				12	0	2	4			B1A			- black graphitic shale with minor pyrite laminations
													END OF HOLE

CYPRUS ANVIL MINING CORPORATIONDIAMOND DRILL CORE LOGHole Number: 80-E-08

Fabric Orientation Diagram:

Project: GATAGALocation: ELF CLAIMSClaim: ELF #5Terr. Plane
Co-ords.: 6 352 350 N397 850 EGrid
Co-ords.: _____Inclination: -60° at 230°

All symmetry determinations looking

_____ with _____ dipping

Elevation: 1340 m (not surveyed)

_____ with dip azimuth _____.

Total Depth: 385.3 m

Purpose: _____

Logged by: C. Jefferson Date(s) Logged: August 17, 1980Drilling Contractor: J.T. Thomas Core: Size From To Collar Cased and Capped: _____NQ 0 355.3

Started: Aug. 12/80 Completed: Aug. 21/80

DDH 80E08

Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: Aug 2/80Logged By: C. Jefferson, w Roberts

Code	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
		00		97				overburden		
			126	9			9B	- gray shale, shale chip breccia, silty shale with calcisilite inclusions ~ 2m.		
			184	8			8U+8S	- light grey speckled calcareous siltstone interbedded with dark grey shale		
			221	0			8T	- black siliceous laminated shale with < 2cm siltstone laminations		
			252	3			8S	- massive competent siliceous black shale		
			253	9			8R	- black shale as above with ~ 20% laminar bandal pyrite		
			268	2			8S	- massive black shale		
			291	7			8R	- massive black shale with < 15cm intervals of laminar bandal pyrite		
			308	0			8T	- black siliceous shale with fine laminations and interbedded < 2cm of light grey siltstone.		
			324	2			8S	- black thick bedded shale with laminar bandal pyrite.		
			332	6			8R	- black thick bedded shale with < 20cm bands of laminar bandal pyrite.		
			336	2			8S	- black thick bedded shale		
			342	6			8T	- black siliceous shale with < 2cm silt laminations.		
			353	3			8D	- black very siliceous shale		
			385	3			6A	- black siliceous shale with few silt laminations		
								— END OF HOLE —		

CYPRUS ANVIL MINING CORPORATION

DIAMOND DRILL CORE LOG

Hole Number: 80-E-09

Fabric Orientation Diagram:

Project: GATAGA

Location: ELF GROUP

Claim: ELF #5

Terr. Plane Co-ords.: 6 352 350 N

397 850 E

Grid Co-ords.: _____

Inclination: -80° towards 230°

All symmetry determinations looking
NW with _____ dipping

Elevation: 1340 m

_____ with dip azimuth _____

Total Depth: 655.9 m

Purpose: _____

Logged by: C. Jefferson/W. Roberts

Date(s) Logged: September 7, 1980

Drilling Contractor: J.T. Thomas

Core:	Size	From	To	Collar Cased and Capped:
	<u>NQ</u>	<u>0</u>	<u>655.9</u>	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Started: Aug. 21/80

Completed: Sept. 2/80

DDH 80 E 09
2 8

Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: Sept/80Logged By: E. J. ...
L. Roberts

Code	From				To				Recov.	No.	Unit	Description
	1	10	14	18	20	22	24	26				
			00		1120							overburden
					1108						9B	- dark grey shale with siltstone interbeds < 1m.
					1186						8U	- grey shale
					1199						8D	- very siliceous black shale
					2076						8S	- massive bedded black shale often with blebs of calcite + barite < 2mm
					2096						8R	- massive thick bedded black shale with < 10cm horizons of laminar banded pyrite
					3578						8S	- massive fractureless, compact black shale with carbonate nodules < 10cm and minor disseminated pyrite
					3584						9F	- massive speckled siltstone.
					3908						8S	- massive bedded black shale, several spherical limonite nodules.
					4340						8R	- laminae banded pyrite in black shale
					4480						8T	- black siliceous shale with < 5cm siltstone laminations.
					4812						8S	- massive black shale with discontinuous beds of ca 5mm barite nodules.
					4983						8R	- massive black shale with blebby nodular pyrite < 3mm and laminar banded pyrite.
					5182						8S	- massive black shale with minor laminar banded pyrite
					5870						8R	- massive black shale with good 10-30cm interbeds of laminar banded pyrite
					6212						8T	- black shale with < 3cm siltstone laminations
					6559						6S	- black shale with carbonate crinoidal debris flows and minor pyrite laminations
												— END OF HOLE —

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
	100	124				overburden
		179			B.U	dark grey to medium grey shale with good phyllitic partings parallel to foliation.
		243			B.S	- massive bedded black siliceous shale with several spherical carbonate nodules < 10cm and indistinct calc. siltite beds < 1cm.
		250			IF	- fault zone several clay gouge zones in bivalent black massive bedded shale.
		255			B.R	- massive black shale with lobbly barite beds (< 3cm) every 5-20 cm.
		263			B.S	- massive black shale with minor nodular barite beds and very graphitic rich horizons.
		317			B.S	massive bedded, competent, black siliceous shale with locally abundant spheroidal septarian carbonate nodules < 5cm.
		360			B.R	- massive bedded black siliceous shale with < 30% laminae banded pyrite.
		386			B.S	- massive bedded black shale
		401			B.R	- massive black shale with 10-20 percent laminae banded pyrite.
		401			B.B	- massive white crystalline barite with < 15 percent pyrite
		411			B.S	
		416			B.R	
		422			B.S	
		427			B.R	

DDH 8.0.E.1.0

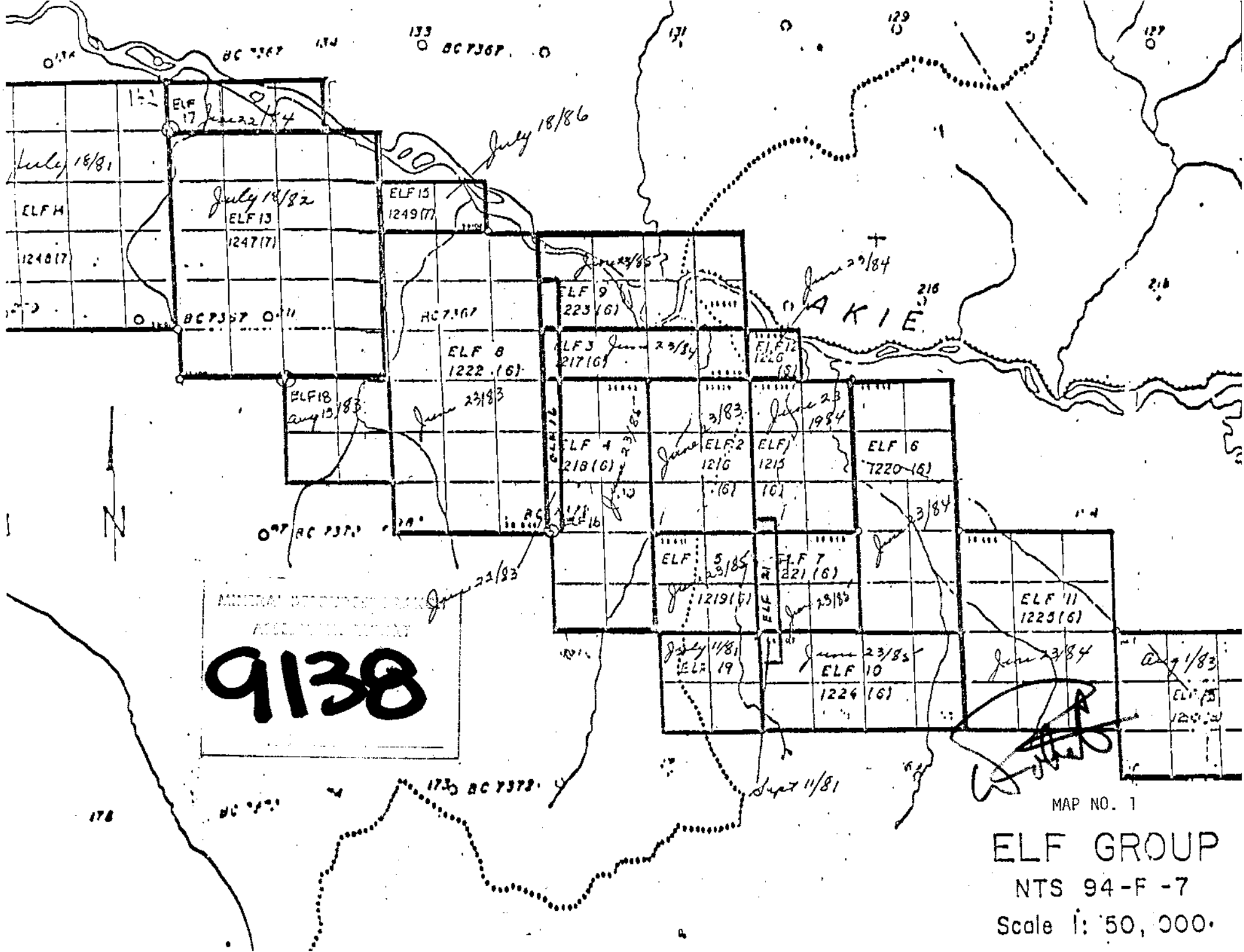
Cyprus Anvil Mining Corp.

Page _____ of _____

Lithologic Log

Date: Sept 13/80Logged By: C. Jefferson

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
	4270		4332						8B	massive white crystalline barite with < 15 percent irregular whorly laminae of sulphides including pyrite, sphalerite and galena.
			4368						8R	
			4492						8S	
			4587						6S	dark grey to black siliceous shale minor calcite veinlets with occasional limestone debris flows less than 2 meters thick
										— END OF HOLE —



MINERAL RESOURCES BANK
 9138

AKIE

MAP NO. 1

ELF GROUP
 NTS 94-F-7
 Scale 1: 50,000.



Legend

- Cut Line
- Pace & Compass Line
- Legal Corner Post
- Diamond Drill Hole

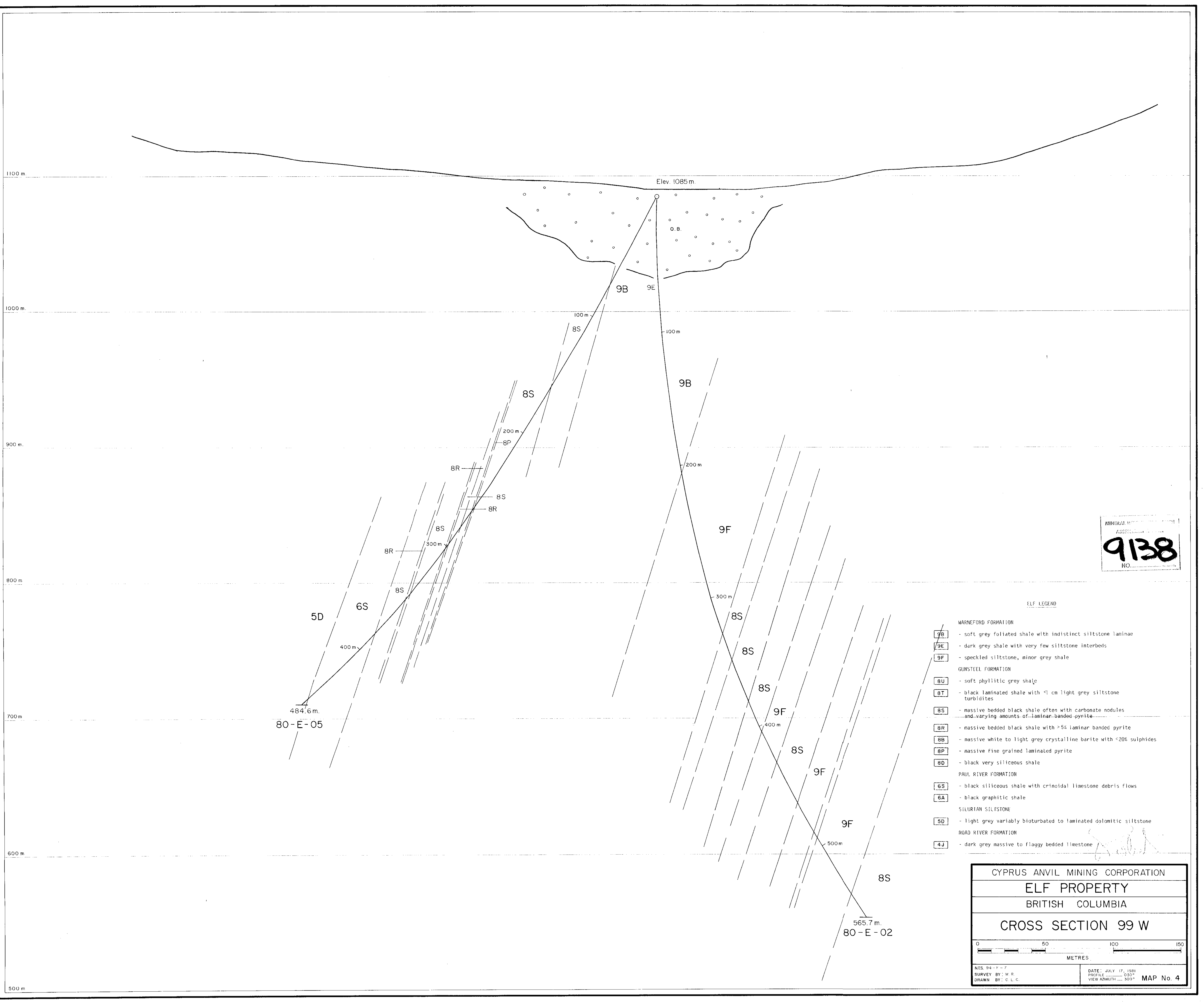
Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute, map accuracy.
 Compiled from aerial photography at an approximate scale of 1:20,000 from 1971.

0 100 200 300 400
 SCALE IN METRES (1:5,000)

Scale - 1:5,000
 Contour - 10 Metres Interval
 Date - JUNE 10, 1980
 Job No. -
 Survey by: W. R. Drawn by: C. L. C.

CYPRUS ANVIL MINING CORP.
ELF CLAIM
DRILL HOLE LOCATION MAP
 Map No. 2

MINERAL RESOURCES DIVISION
 TECHNICAL REPORT
9138



MINSBURG
 ASSOCIATES
9138
 NO.

ELF LEGEND

- WARNEFORD FORMATION
 - 9B - soft grey foliated shale with indistinct siltstone laminae
 - 9E - dark grey shale with very few siltstone interbeds
 - 9F - speckled siltstone, minor grey shale
- GUNSTEEL FORMATION
 - 8U - soft phyllitic grey shale
 - 8T - black laminated shale with <1 cm light grey siltstone turbidites
 - 8S - massive bedded black shale often with carbonate nodules and varying amounts of laminar-banded pyrite
 - 8R - massive bedded black shale with >5% laminar-banded pyrite
 - 8B - massive white to light grey crystalline barite with <20% sulphides
 - 8P - massive fine grained laminated pyrite
 - 8D - black very siliceous shale
- PAUL RIVER FORMATION
 - 6S - black siliceous shale with crinoidal limestone debris flows
 - 6A - black graphitic shale
- SILURIAN SILTSTONE
 - 5D - light grey variably bioturbated to laminated dolomitic siltstone
- ROAD RIVER FORMATION
 - 4J - dark grey massive to flaggy bedded limestone

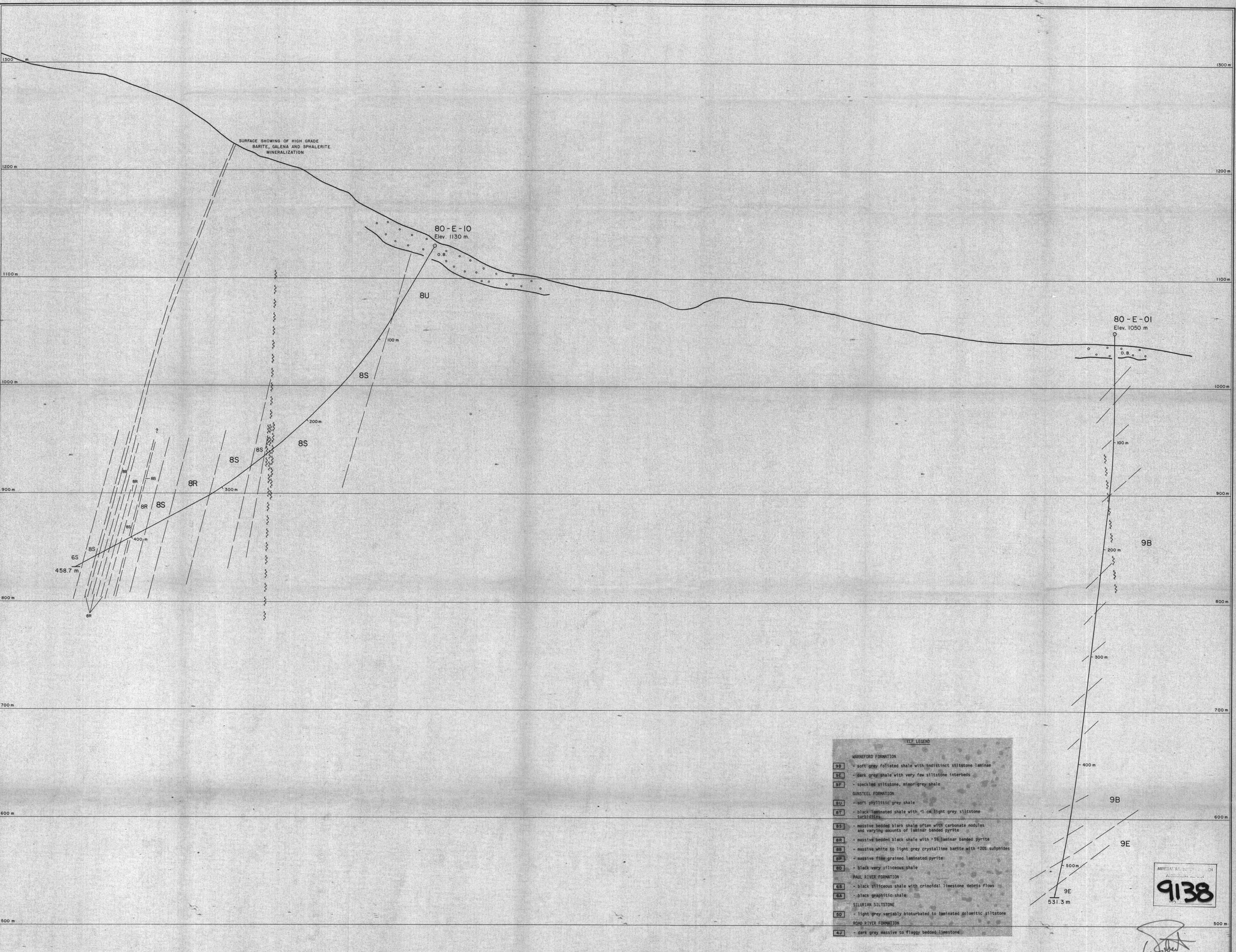
CYPRUS ANVIL MINING CORPORATION
 ELF PROPERTY
 BRITISH COLUMBIA
CROSS SECTION 99 W

0 50 100 150
 METRES

N.T.S. 99-1-7
 SURVEY BY: W.R.
 DRAWN BY: C.L.C.

DATE: JULY 17, 1981
 PROFILE: 030°
 VIEW AZIMUTH: 300°

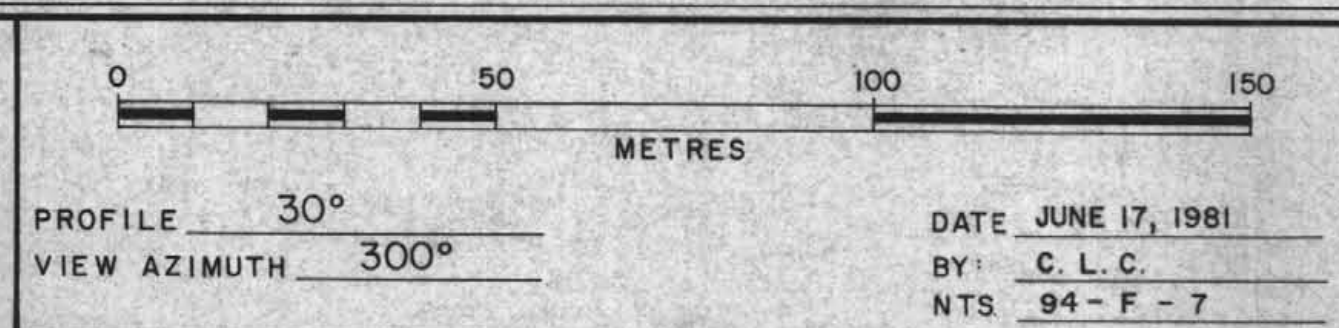
MAP No. 4



ELF LEGEND

WARNEFORD FORMATION	
9B	soft grey foliated shale with indistinct siltstone laminae
9E	dark grey shale with very few siltstone interbeds
9F	speckled siltstone, minor grey shale
GUNSTEEL FORMATION	
8U	soft phyllitic grey shale
8T	black laminated shale with 1 cm light grey siltstone turbidites
8S	massive bedded black shale often with carbonate nodules and varying amounts of laminar bedded pyrite
8R	massive bedded black shale with >5% laminar bedded pyrite
8B	massive white to light grey crystalline barite with <20% sulphides
8D	massive fine grained laminated pyrite
8C	black very siliceous shale
PAUL RIVER FORMATION	
6S	black siliceous shale with crinoidal limestone debris flows
6A	black graphitic shale
SILURIAN SILTSTONE	
5D	light grey variably bioturbated to laminated dolomitic siltstone
ROAD RIVER FORMATION	
4U	dark grey massive to flaggy bedded limestone

MINERAL RESEARCH
CORPORATION
9138



1500 m.

1400 m.

1300 m.

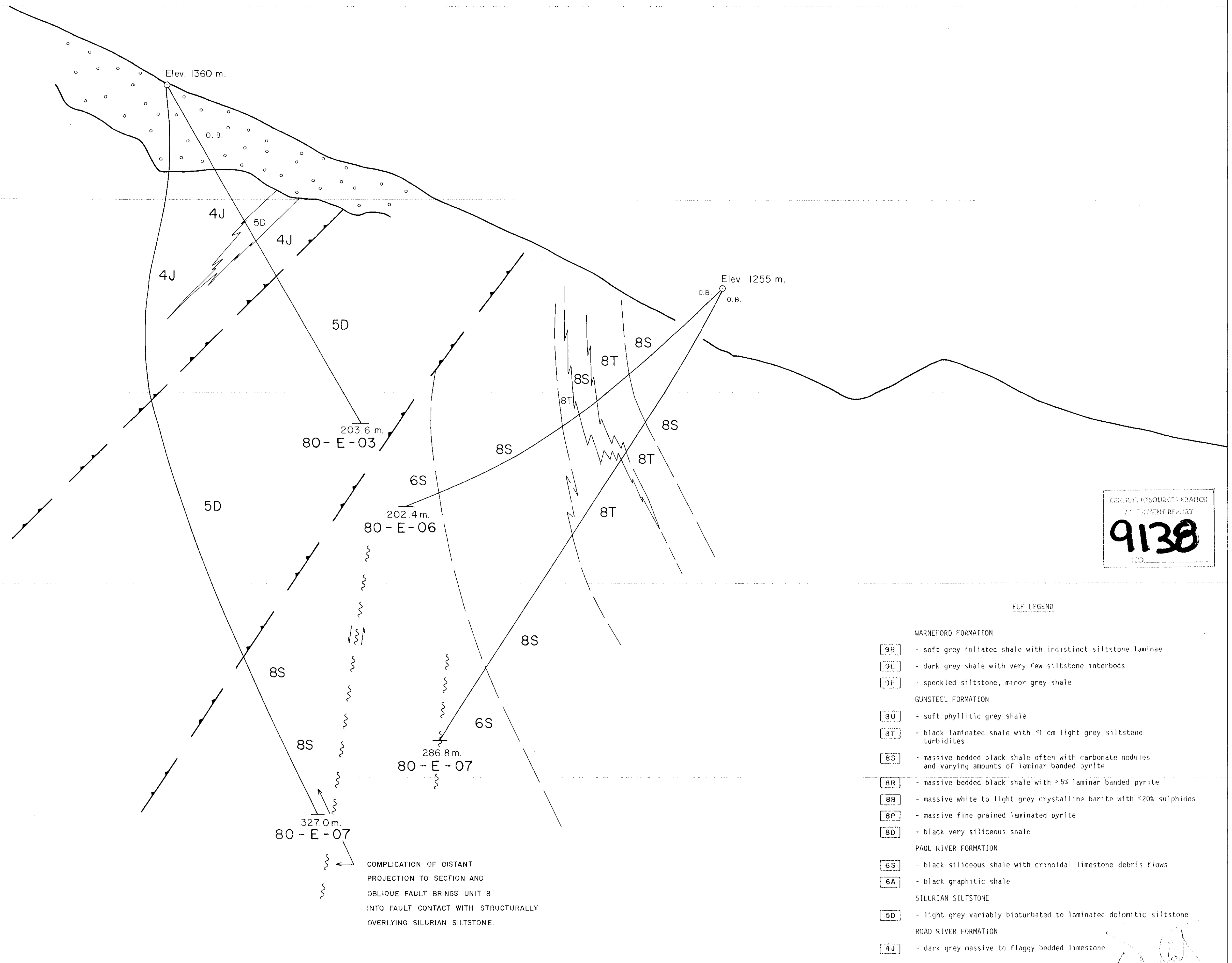
1200 m.

1100 m.

1000 m.

900 m.

800 m.



MINERAL RESOURCES BRANCH
 STATEMENT REPORT
9138
 NO.

ELF LEGEND

- WARNEFORD FORMATION
- [9B] - soft grey foliated shale with indistinct siltstone laminae
 - [9E] - dark grey shale with very few siltstone interbeds
 - [9F] - speckled siltstone, minor grey shale
- GUNSTEEL FORMATION
- [8U] - soft phyllitic grey shale
 - [8T] - black laminated shale with <1 cm light grey siltstone turbidites
 - [8S] - massive bedded black shale often with carbonate nodules and varying amounts of laminar banded pyrite
 - [8R] - massive bedded black shale with >5% laminar banded pyrite
 - [8P] - massive white to light grey crystalline barite with <20% sulphides
 - [8Q] - massive fine grained laminated pyrite
 - [80] - black very siliceous shale
- PAUL RIVER FORMATION
- [6S] - black siliceous shale with crinoidal limestone debris flows
 - [6A] - black graphitic shale
- SILURIAN SILTSTONE
- [50] - light grey variably bioturbated to laminated dolomitic siltstone
- ROAD RIVER FORMATION
- [4J] - dark grey massive to flaggy bedded limestone

CYPRUS ANVIL MINING CORPORATION
 ELF PROPERTY
 BRITISH COLUMBIA

CROSS SECTION 105 + 00 W

0 50 100 150
 METRES

NTS. 94-F-7 DATE: JULY 16, 1981
 SURVEY BY: W. R. PROFILE: 030°
 DRAWN BY: C. L. C. VIEW AZIMUTH: 300° MAP No. 6