

83-#147-#1151

ASSESSMENT REPORT

ON THE

ELO 2-7 & BRX 3-5 CLAIMS

LIARD MINING DIVISION

NTS 104P/5W

BRITISH COLUMBIA

Operator: Eldorado Minerals & Petroleum Corp.

Author: Virginia M. Kuran

April 14/83

59° 27.5' 129° 51.5'

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,151

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MCDAME PROJECT
STATEMENT OF EXPENDITURES
FIELD WORK PERIOD JULY 21-24/82 JULY 26

(111)

(1) Personal			
(a) Virginia Kuran	8 days	\$92.00/day	\$ 736.00
(b) Ann Mueller-Wilm	8 days	60.00/day	480.00
	5 days mapping, prospecting, sampling		
	2 days travelling to project, one day camp preparation		
(2) Room & Board			
	6 days @	\$70.00/day	420.00
	10 days @	45.00/day	450.00
(3) Travelling Expenses			
(a) Vancouver - Watson Lake	20% of	419.00	83.80
(b) Truck Rental & Gas	20% of	300.00	60.00
(4) Field Transportation			
(a) Helicopter	50% of	3288.25	1644.13
(5) Geochemistry			
(a) Soil	41 x	9.75	399.75
Silt	22 x	9.75	214.50
Rock	7 x	11.75	82.25
(6) Report Preparation			
Virginia Kuran	3 days @	92/day	276.00
	Report Writing		
Virginia Kuran	2 days @	92/day	184.00
	Report Drafting		
			\$ 5029.43

1.0 Introduction

In the spring of 1982 a total of 12 B.C. claims and 254 Yukon claims were staked in a joint venture between ELO, BRX and Highmark Resources Ltd. The B.C. claims were staked in two groups: one group situated at the south end of the Midway property and the second group was staked between Regional's Jan and Blue properties. These claims were located along strike of a geological belt favourable for Midway-type lead-zinc-silver deposits. The 254 Yukon claims were staked in five separate claim blocks to cover favourable ground for Midway and Meister-type lead-zinc-silver deposits. These claims were selected by utilizing geological and geochemical data available on the area.

The 1982 exploration program was carried out by Eldorado and was centered on the B.C. claims located between the Blue and Jan properties. The program consisted of prospecting, geological mapping, soil and stream sediment sampling and rock chip sampling. An additional five claims, BEAR 1-5, were staked adjacent to this claim group in the summer of 1982.

2.0 List of Claims

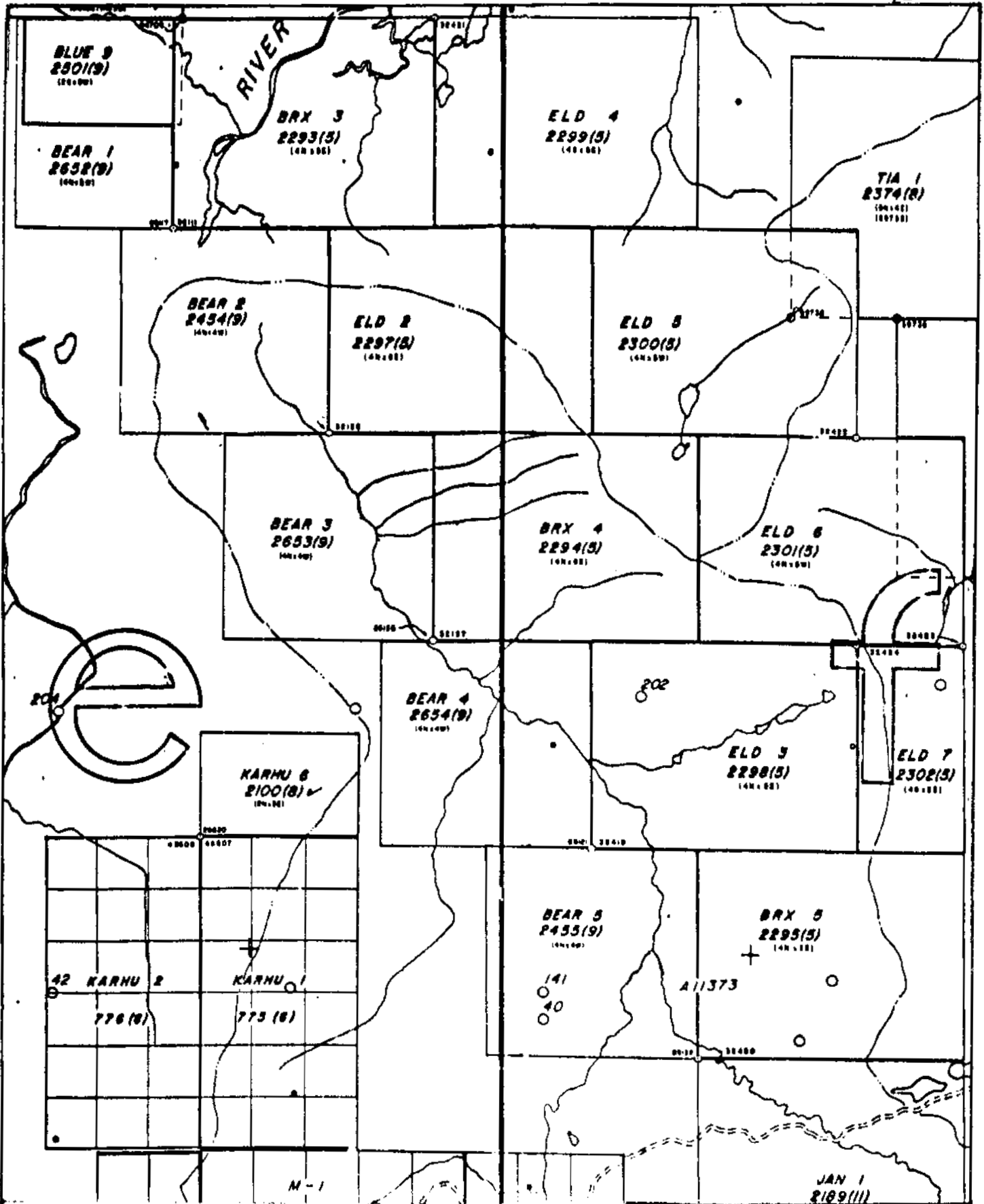
The following list of claims are included in the McDame project of which Eldorado owns 33 1/3%, BRX owns 33 1/3% and Highmark owns 33 1/3%.

B.C. Claims

<u>CLAIMS NAME</u>	<u>RECORD NO.</u>	<u>NO. OF UNITS</u>	<u>MAP/CLAIM SHEET</u>	<u>ANNIVERSARY DATE</u>
BRX 1	32492	20	1040 16E	May 6/83
BRX 2	32493	8	1040 16E	May 6/83
BRX 3	2293	20	104P 5W	May 6/83
BRX 4	2294	20	104P 5W	May 6/83
BRX 5	2295	20	104P 5W	May 6/83
ELO 1	32491	20	1040 16E	May 6/83
ELO 2	2297	20	104P 5W	May 6/83
ELO 3	2298	20	104P 5W	May 6/83
ELO 4	2299	20	104P 5W	May 6/83
ELO 5	2300	20	104P 5W	May 6/83
ELO 6	2301	20	104P 5W	May 6/83
ELO 7	2302	8	104P 5W	May 6/83
BEAR 1	2652	12	104P 5W	Sept. 2/83
BEAR 2	2454	16	104P 5W	Sept. 2/83
BEAR 3	2653	16	104P 5W	Sept. 2/83
BEAR 4	2654	16	104P 5W	Sept. 2/83
BEAR 5	2455	16	104P 5W	Sept. 2/83

Yukon Claims

<u>CLAIMS NAME</u>	<u>RECORD NO.</u>	<u>MAP/CLAIM SHEET</u>	<u>ANNIVERSARY DATE</u>
Cre 1-84	YA67725-YA67808	105B 3	May 6/83
Sea 1-52	YA67873-YA67924	105B 3	May 6/83
Mei 1-24	YA67925-YA67948	105B 7	May 6/83
Sab 1-40	YA67809-YA67848	105B 7	May 6/83
Spe 1-24	YA67849-YA67872	105B 2	May 6/83



ELDORADO MINERALS
 ELD 2-7 & BRX 3-5 Claims
 NEW STAKING
 Bear 1-5 Claims

April 7/83 Fig. 1

The following report is based on the exploration program done on the claims ELO 2-7 and BRX 3-5 between Regional's Jan and Blue properties.

3.0 Location, Access and Topography

The B.C. claim group located between Regional's Blue and Jan properties is situated in the Liard Mining District, 75 km southeast of Rancheria, Yukon Territories (Fig. 2). Access to the property is by helicopter from Rancheria or 7 km to the south from Cassiar on highway 37. Topographic relief varies from 3750' to 7000' with rugged rocky slopes above treeline (4500') and heavy timber at creek level.

4.0 Regional Geology

The geology of the McDame map sheet is available in Map 1110A by H. Gabrielse and L. Price. A portion of this map is shown in Fig. 3. The McDame Project claim group is located on the southwest limb of a major synclinalorium. The base of this limb of the synclinalorium is formed by Cambrian-Ordovician Kechika Group sediments, Lower Cambrian Atan Group sediments and the Proterozoic Good Hope Group sediments and schists. These rocks are conformably overlain by the Sandpile Group sediments of Ordovician-Silurian age with possible infolded Devonian sediments. These sediments are in turn overlain by Middle to Upper Devonian McDame Group limestone. Upper Devonian and Lower Mississippian Sylvester Group volcanics and sediments overlay the McDame Group. The sediments within this Sylvester group host the Midway lead-zinc-silver deposit 60 km to the northwest.

5.0 Property Geology

Geological mapping of the property at a 1:50,000 scale (Fig. 4) outlined five distinct units striking in a northwest-southeast direction. Generally all the units dip northeast. Unit 1 outcrops along the main river on the property running northwest-southeast. It consists of platy, grey to brown weathering grey limestone. Sitting above Unit 1 is a package of rusty weathering black siliceous mudstones and black shales. These units are of Ordovician-Silurian and possibly Devonian age according to the GSC map 1101A. Units 3, 4 and 5 form a succession which strongly resembles the stratigraphic section at the Midway Deposit. Unit 3 consists of a cliff forming, grey blocky weathering limestone containing bright orange dolomite beds which may be the equivalent to the Middle Devonian McDame Group. Unit 4 consists of blue-grey to rusty weathering black shales and mudstone with interbeds of siltstone. Bright orange gossans occur along the strike of this unit which is probably the equivalent to the Middle Upper Devonian-Lower Sylvester Group. Unit 5 is composed of green to brown weathering agglomerate and greenstone, and may be the equivalent to the Mississippian Upper Sylvester Group.



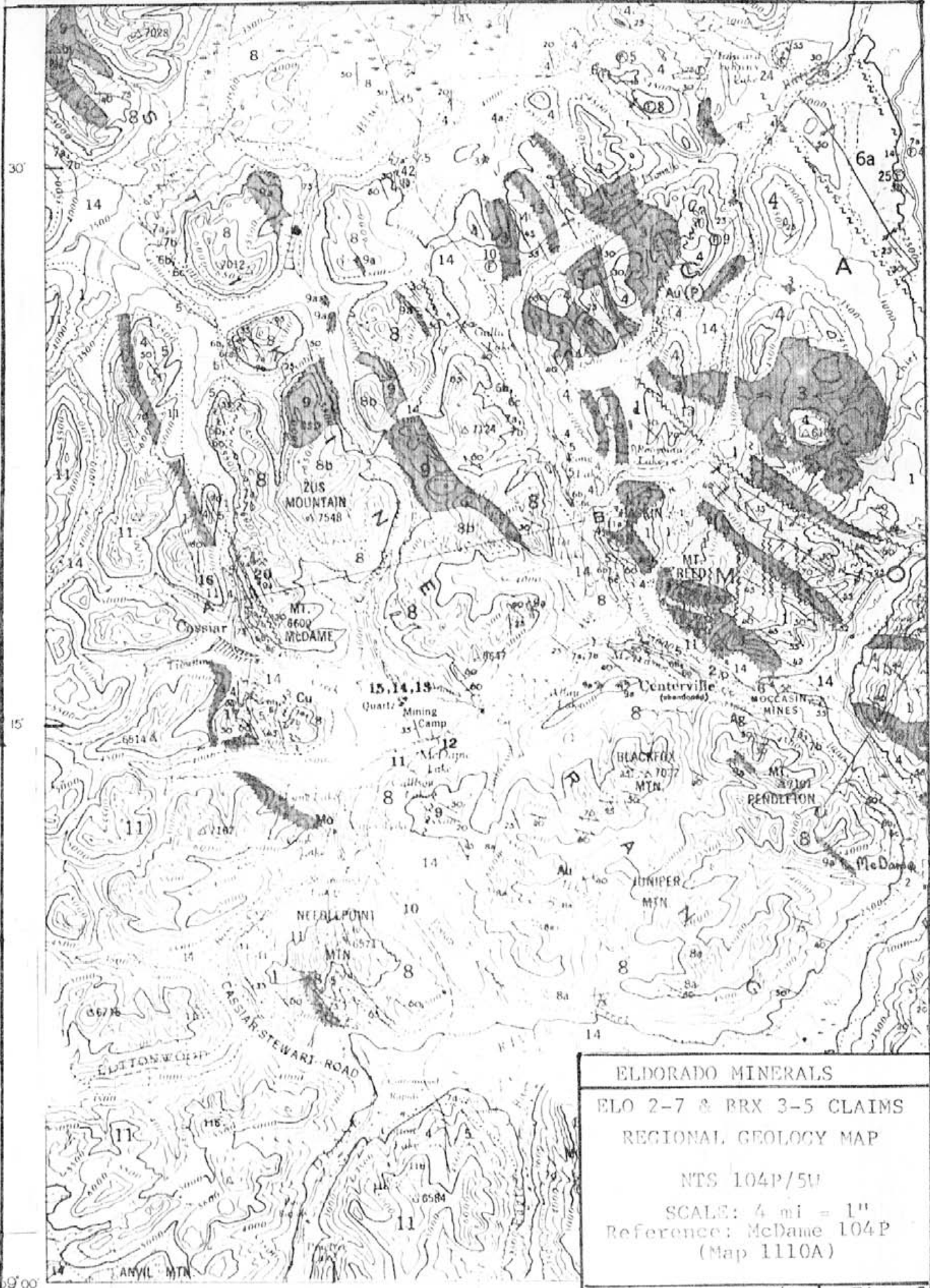
ELDORADO MINERALS & PETROLEUM CORP.

ELO 2-7 & BRX 3-5
CLAIMS

PROPERTY LOCATION MAP



DRAWN V. Kuran	PROJECT McDame	DATE April 7/83	FIG. 2
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ELDORADO MINERALS
 ELO 2-7 & BRX 3-5 CLAIMS
 REGIONAL GEOLOGY MAP
 NTS 104P/5U
 SCALE: 4 mi = 1"
 Reference: McDame 104P
 (Map 1110A)

Date: April 8/83 Fig. 3

LEGEND

(to accompany Fig. 3 Regional Geology)

PLEISTOCENE AND RECENT

- 14 Glacial and glacio-fluvial deposits, stream deposits, felsenmeer, talus, soil

JARASSIC AND/OR CRETACEOUS

CASSIAR INTRUSIONS

- 11 Quartz monzonite, grandiorite: granite, pegmatite, aplite, porphyritic granite;
11a, granite porphyry; may be late Cretaceous or Tertiary;
11b, contains limestone inclusions;
11c, contains gneissic inclusions

MISSISSIPPIAN (?)

LOWER MISSISSIPPIAN (?)

- 9 Serpentinite, peridotite, dunite, pyroxenite: minor metamorphosed volcanic rocks;
9a, mainly serpentinite

DEVONIAN AND MISSISSIPPIAN

UPPER DEVONIAN AND LOWER MISSISSIPPIAN
Sylvester Group

- 8 Greenstone, chert-quartz arenite, chert, argillite, slate, quartzite; greywacke, limestone, conglomerate;
8a, limestone;
8b, metamorphosed volcanic rocks;
8c, quartzite, limestone, slate, argillite, phyllite; may include minor 7 and 5;
8d, chert and slate

DEVONIAN

MIDDLE AND (?) UPPER DEVONIAN
McDame Group (7a, 7b)

- 6 6a, dolomite, cherty dolomite, dolomite breccia, sandy dolomite,

dolomitic sandstone, sandstone, quartzite; Ordovician and Silurian;

6b, sandstone and quartzite, sandy dolomite, dolomite; siltstone; minor dolomite breccia; Silurian;

6c, laminated dolomite; may be in part or entirely Devonian;

6d, dolomite breccia, may be in part or entirely Devonian

CAMBRIAN AND ORDOVICIAN

MIDDLE AND (?) UPPER CAMBRIAN, LOWER AND MIDDLE ORDOVICIAN
Kechika Group

5 Limestone, calcareous slate, phyllitic limestone, calcareous phyllite; pyritic and carbonaceous slate and shale, conglomerate; greenstone, may be in part or entirely younger;

5a, may include infolded strata as young as Mississippian

CAMBRIAN

LOWER CAMBRIAN
Atan Group (3,4)

4 Limestone, dolomite; minor shale;

4a, may be in part or entirely Precambrian;

4b, may be in part or entirely as young as Devonian

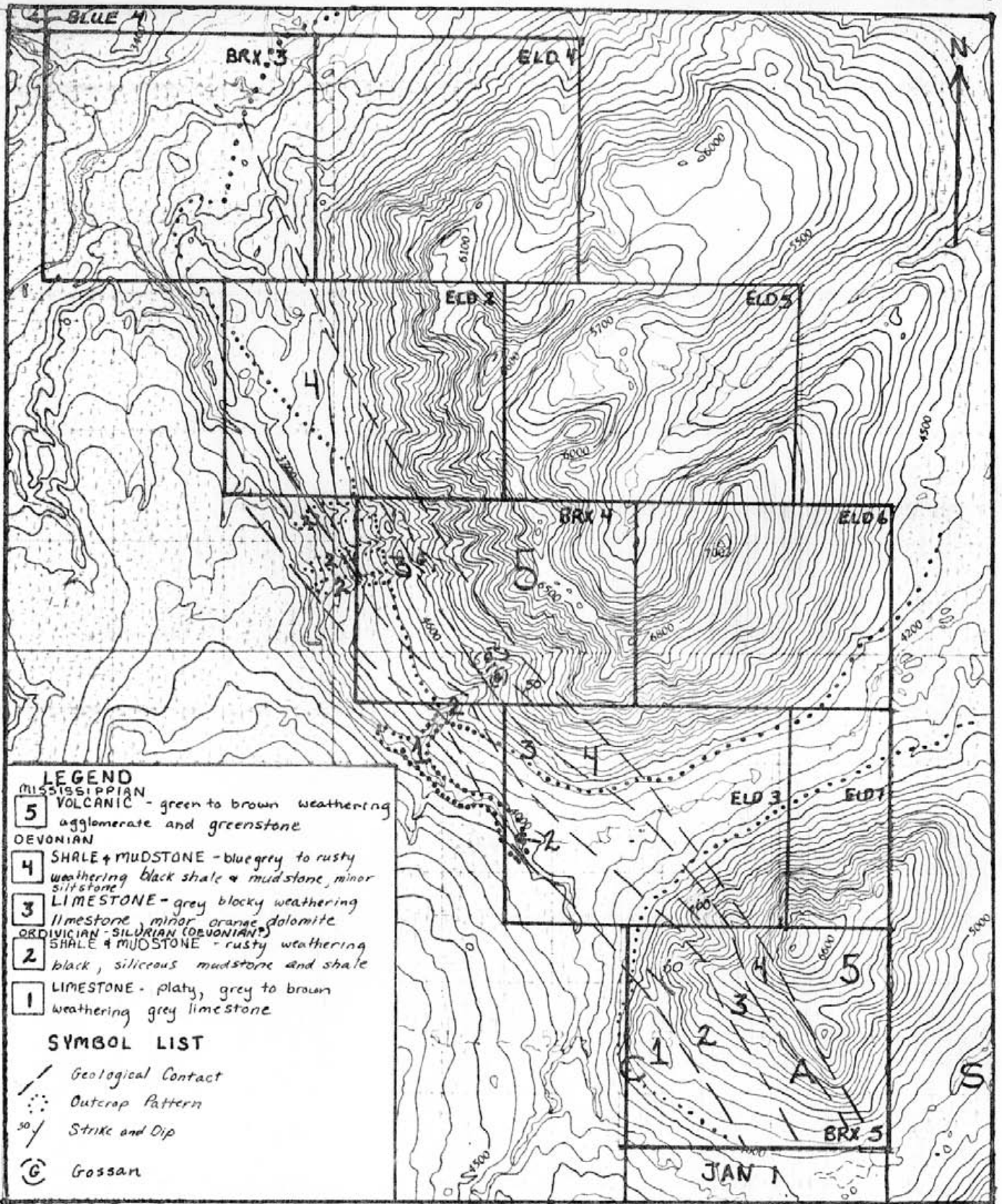
3 Quartzite, shale, slate; argillite, pebble-conglomerate, siltstone

GOOD HOPE GROUP

1. Limestone, dolomite, slate, argillite; sandy limestone, red and green slate, shale, limestone; minor quartzite, siltstone, phyllite, chlorite schist;

1a, may locally include some 4

2. Limestone, greenstone, chlorite schist, graphitic and chloritic calcareous schist



LEGEND

MISSISSIPPIAN
VOLCANIC - green to brown weathering
agglomerate and greenstone

DEVONIAN

4 SHALE + MUDSTONE - bluegrey to rusty
weathering black shale & mudstone, minor
siltstone

3 LIMESTONE - grey blocky weathering
limestone, minor orange dolomite

ORDEVICIAN-SILURIAN (DEVONIAN)
2 SHALE + MUDSTONE - rusty weathering
black, siliceous mudstone and shale

1 LIMESTONE - platy, grey to brown
weathering grey limestone

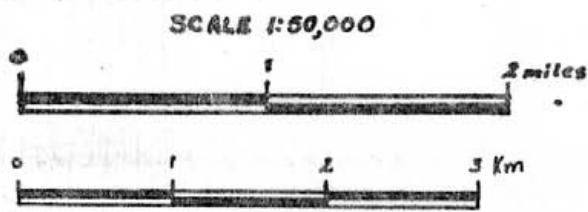
SYMBOL LIST

— Geological Contact

⋯ Outcrop Pattern

50/ Strike and Dip

⊙ Gossan



ELDORADO MINERALS

ELD 2-7 & BRX 3-5
CLAIMS

PROPERTY GEOLOGY

104P/5W

April 7/83 Drawn by: V. Kucera Fig. 4

6.0 Economic Geology

The contact between Unit 3 and 4 resembles the geology of the "Lower Zone" mineralized horizon at the Midway. The sediments along this contact are the prime target host rocks for lead-zinc-silver mineralization. The succession of sediments above this contact appears to be relatively thin compared to the stratigraphic section at the Midway. No baritic horizons were recognized in Unit 4.

7.0 Geochemistry

7.1 Soil Geochemistry

During the 1982 program, 41 soil samples were taken along strike of Unit 4 near the contact between Unit 3 and 4 and also in Unit 2. These samples were taken from the B soil horizon where a rusty brown soil horizon was developed at a 10 to 25 cm depth. Samples were placed in Kraft envelopes, dried and sent to Acme Analytical in Vancouver.

Acme dried the samples further if required when they arrived in Vancouver. The samples were then sieved through an ASTM 80 mesh screen. A 5 gram sample of this -80 mesh fraction was digested in acid and analyzed by the Inductively Coupled Argon Plasma technique (I.C.P.). A total of 41 samples were analyzed for copper, lead, zinc, silver, barium and gold.

Results of the survey are shown in Fig. 5. The following copper, lead, silver and barium anomalies were produced. Five soil samples ran between 134 ppm and 697 ppm Cu; four samples contained between 55 and 74 ppm lead; six contained between 3.5 and 9.3 ppm silver and three contained between 2623 and 3240 ppm barium. These samples indicate more detailed sampling is required.

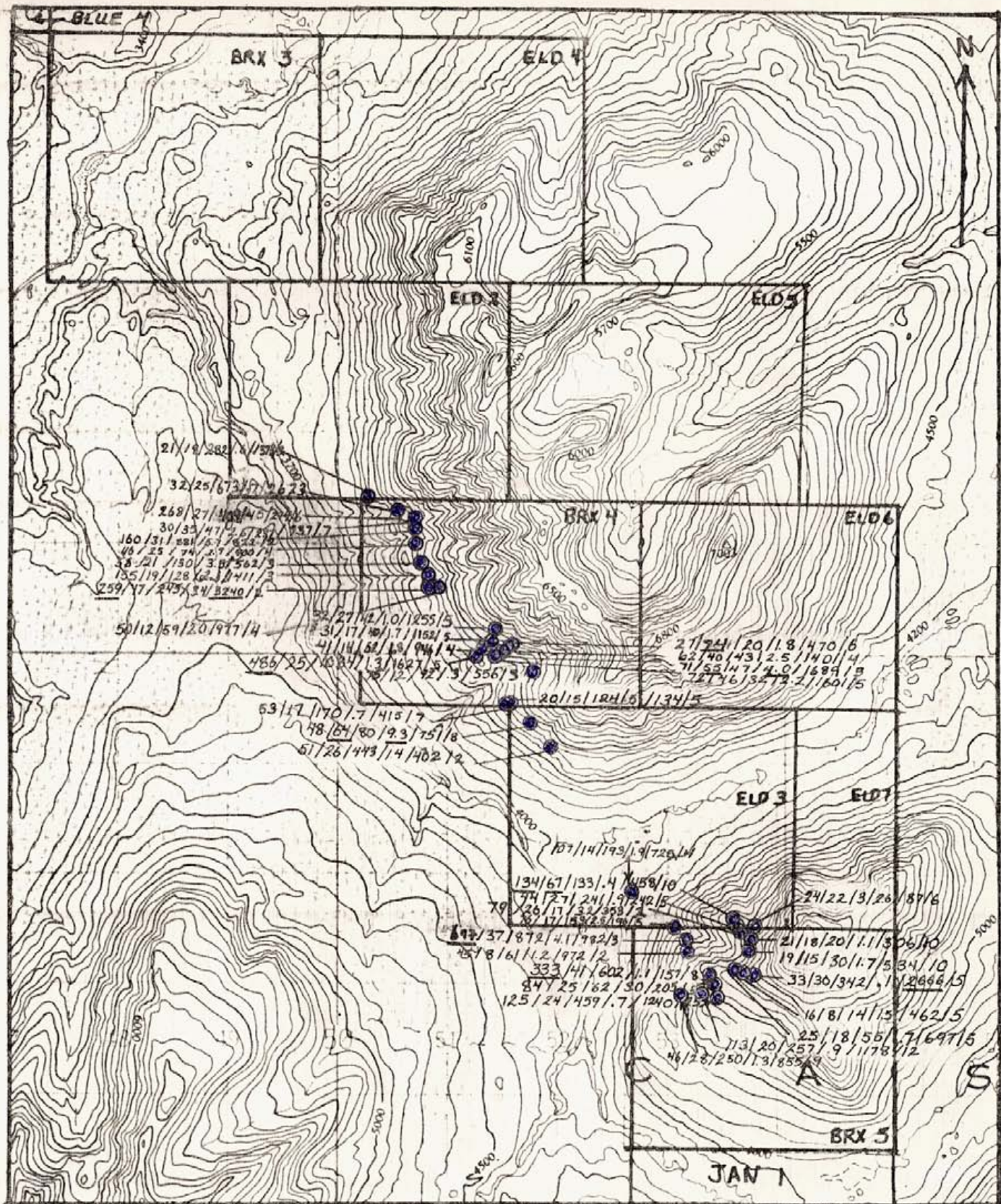
7.2 Stream Sediment Geochemistry

Twenty-two stream sediment samples were taken from the main creeks draining the sediments on the southwest edge of the property. The samples were placed in Kraft envelopes, dried and sent to Acme Analytical. At Acme, the samples were sieved and the -80 mesh fraction was taken and analyzed by ICP.

7.3 Rock Chip Geochemistry

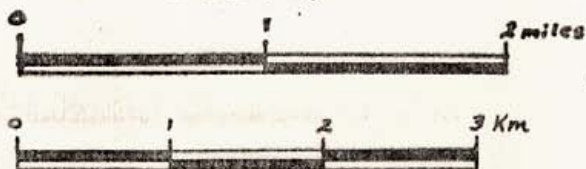
Seven samples of siliceous mudstone near gossans in Unit 4 were selected for geochemical analysis.

These samples were crushed to -80 mesh, digested in acid, and analyzed for copper, lead, zinc, silver, barium and gold. No anomalies were produced from these rocks.



Anomalous Values are Underlined

SCALE 1:50,000



ELDORADO MINERALS

ELD 2-7 & BRX 3-5 CLAIMS

SOIL GEOCHEMISTRY 4

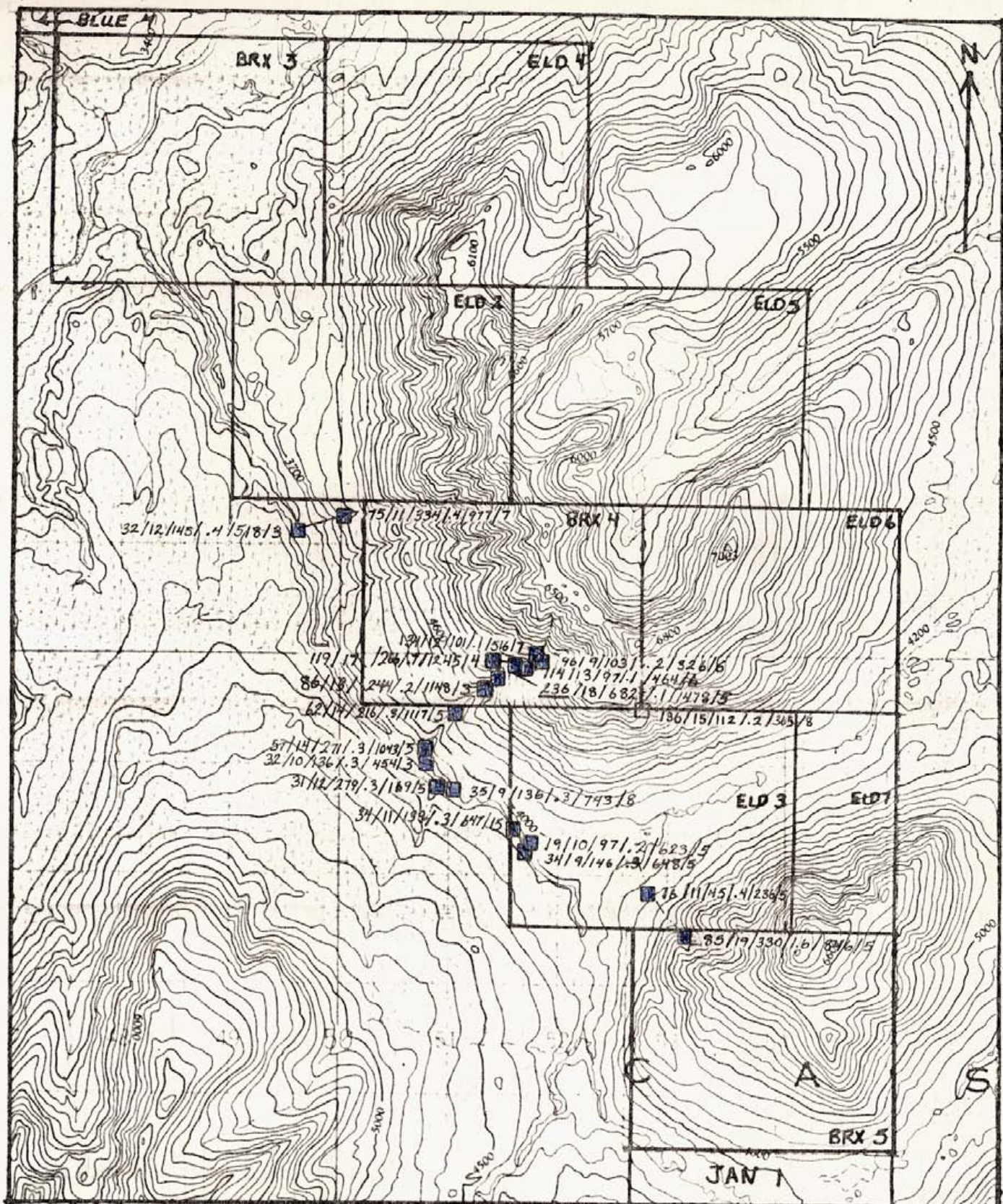
○ 25/18/55/7/697/5 Cu, Pb, Zn, Ag, Ba, Au
 Au ppb
 all other elements ppm

104P/5W

April 7/83

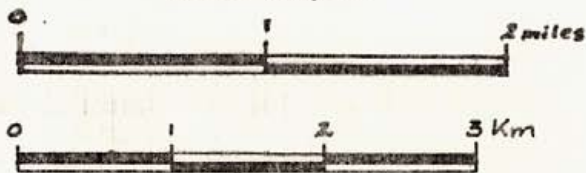
Drawn by: V. Kuran

Fig. 5



Anomalous Values are Underlined

SCALE 1:50,000



ELDORADO MINERALS

**ELD 2-7 & BRX 3-5
CLAIMS**

STREAM SEDIMENT GEOCHEMISTRY

□ 19/10/97/2/623/5 Cu, Pb, Zn, Ag, Ba, Au
Au ppb

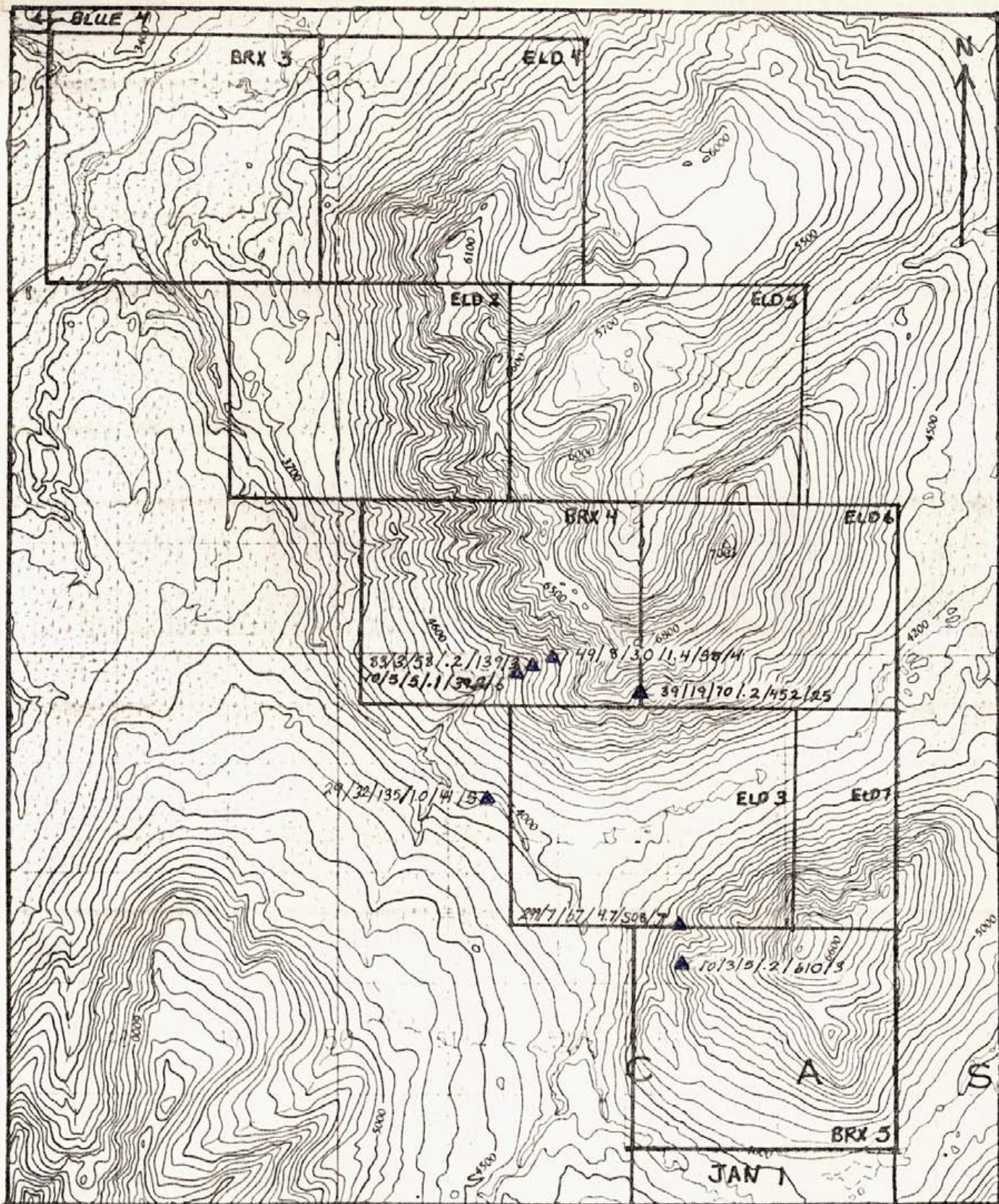
all other elements ppm

104P/SW

April 7/93

Drawn by: V. Kuran

Fig. 6

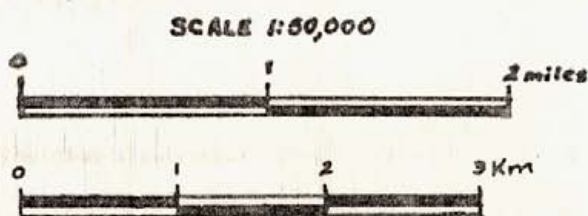


83/3/58/.2/137/3
 70/5/5/1.1/30/6
 49/8/30/1.4/30/4
 39/19/70/2/452/25

29/32/135/10/4/5

29/7/67/4.7/508/7

10/3/5/2/610/3



ELDORADO MINERALS

ELD 2-7 & BRX 3-5 CLAIMS

Rock Chip Geochemistry

△ 10/3/5/2/610/3 Cu, Pb, Zn, Ag, Ba, Au

Au ppb
 all other elements ppm

104P/5W

April 7/83 Drawn by: V. Kuran Fig. 7

8.0 Discussions and Conclusions

(a) Geological mapping of the property has outlined Devonian geological units similar to the host rocks at the Midway lead-zinc-silver discovery.

(b) Soil sampling appears to be the most effective technique in detecting anomalous copper, lead, zinc, silver values on the property.

9.0 Recommendations

1. An exploration program of detailed prospecting and systematic soil sampling along the strike of the contact between Unit 4 and Unit 3 is suggested for claims BRX 3-5 and ELO 2-3 claims.

2. Geological mapping and prospecting along the strike of Unit 2 on the new Bear claims 1-5 should be done to determine if it has any similarities to the Devonian rocks on the Midway. If any similarities are observed, this unit should be systematically soil sampled.

APPENDIX I

LIST OF REFERENCES

- Gabrielse, H., McDame Map-Area, Cassiar District,
British Columbia.
Memoir 319, 1963
- Ministry of Energy Mines and Petroleum Resources,
Geological Fieldwork 1981
A Summary of Field Activities.
Paper 1982-1, January 1982.
- Sellmer, H.W., Stolery, J.W.,
Midway An analysis of a New Massive
Sulphide Discovery. Presented at the
Prospectors and Developers Convention,
Toronto, Ontario, March 10, 1982.

APPENDIX 2

Statement of Qualifications

I, Virginia M. Kuran, of 1742 Pendrell Street, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a geologist contracted by Eldorado Minerals & Petroleum Corp. and BRX Mining & Petroleum Ltd. with offices at 1020-800 West Pender Street, Vancouver, B.C.
2. I am a graduate of the University of British Columbia with an Honors Bachelor of Science Degree in Geology.
3. My primary employment since graduating in 1980 has been in the field of mineral exploration, as a Field Geologist.
4. This report is based on field work which I actively participated in between July 21, 1982 and July 26, 1982.

Dated at Vancouver, British Columbia, this 14th day of *April* 1983.

Virginia Kuran