

85-708-14567

GEOLOGICAL REPORT  
DONA AND IRENE CLAIMS  
VERNON MINING DIVISION  
BRITISH COLUMBIA  
MONASHEE MOUNTAINS AREA

11/86

NTS 82 ~~L~~1W  
(LAT. 50°08'N and 118°24'W)

OPERATOR AND OWNER

KEEFER RESOURCES INC.  
#1410 - 650 West Georgia Street  
Vancouver, B.C. V6B 4N8

FILMED

by

L.A. Bayrock, Ph.D., P.Geol.  
1899 Queens Avenue  
West Vancouver, B.C.

**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**  
September 1985

14,567 11/86

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Geological Report on the Dona and Irene Claims  
Vernon Mining Division, Monashee Mountains

Introduction

Terms of Reference:

Mr. Daniel Small, Keefer Resources Inc. approached the writer in September 1985 to compile an assessment report on the Dona and Irene claims for the year ending July, 1985. Considerable work has been done on the claims in October 1984. The work was supervised by F.M. Smith, P.Eng., who also described the geology and sampled the trenches. The author of this report visited the claims for one day on September 21, 1985. The maps and mapping results of the trenches performed by Mr. F. M. Smith were presented to the author as a basis for this report. An assessment report on the property of July 1984 and authored by Shannon Grant, B.Sc. and F.M. Smith, P.Eng., serves as a background for this report.

Location and Access:

The general location of the property is shown on Figure 1. The claims are located in the Monashee Mountains in the upper reaches of the Kettle River. The Dona claims are situated on the south slope of a hill at elevations from 1,300 to 1,700 meters. The claims are in the Vernon Mining Division, British Columbia. The nearest town is Lumby, which is approximately 50 kilometers west on Highway 6. A gravel road leads from Highway 6 to the property (Keefer Lake Road) for five kilometers and then a logging road leads to the central portion of the claims. The distance on the logging road is approximately two kilometers.

### Topography and Vegetation:

All of the work performed during October, 1984 was on the Dona claims. The topography is that of a mountain side with slopes from  $10^{\circ}$  to  $30^{\circ}$  in the lower portions and near the upper portions, trench T 84-6 the slopes are below  $10^{\circ}$ . Vegetation of the Dona group is comprised of spruce, hemlock, cedar and Douglas fir, all immature because the area has been burned over. Mature forest is present only near T84-6.

The Irene claims surround the Dona claims on all sides except the west, Figure 2. These claims are located on both sides of the Kettle River and cover slopes of mountains facing south and north. Surrounding the Kettle River are wide and flat alluvial plains which are also covered by the claims groups. No work has been done on the Irene claims.

The Irene claims have forest vegetation both mature and immature. Small meadows are present along the Kettle River.

### Claims:

The Dona-Irene group consist of three owner groups with all claims subject of an option agreement with previous owners. The Dona claims are recorded in the name of G.A.Noel and Associates Ltd., the Irene 1 is owned by Salmet Resources Corporation (and located by V.Ryback-Hardy P.Eng.). The Irene 2 through 5 and Irene Fraction are owned by Granex Resources Corporation. Right, title and interest in and to all of these claims have recently been acquired by Keefer Resources Inc.

<u>Claim Name</u>	<u>Type</u>	<u>Record No.</u>	<u>Expiry Date</u>
DONA 1-11	2 post	17281-17291	July 27, 1985
DONA 12-17	2 post	17390-17395	Sept. 28, 1985
IRENE 1 2N 2W	metric	964 (12)	Dec. 11, 1985
IRENE 2 1N x 8E	metric	1231 (8)	July 9, 1985
IRENE 3 3S x 6E	metric	1232 (8)	July 9, 1985
IRENE 4 3S x 6E	metric	1233 (8)	July 9, 1985
IRENE 5 3S x 3W	metric	1234 (8)	July 9, 1985
IRENE Fraction	metric	1235 (8)	July 9, 1985

The expiry dates will be advanced one year for all of the claims upon acceptance of this report.

Posts for Dona and Irene claims were examined in the field in October 1983, by Mr. F.M Smith and were found to be in order.

The locations of the claims are shown of Figure 2.

## GEOLOGY

### Regional Geology:

The regional geology of the claims group has been compiled from existing literature by F.M. Smith and was presented in his 1984 report. For the sake of completion, his description is reproduced below.

The DONA group lies in a 27 km (North-South) by 16 km (East-West) belt of sedimentary and volcanic rocks mapped as Carboniferous-Permian "Cache-Creek" group (Jones 1959). According to A.V. Okulitch and R.B. Campbell (1980, Open File 637), the DONA claims are in the "Thompson Assemblage", the renamed "Cache-Creek" group.

"The Assemblage is typified by argillaceous sediments, volcaniclastic rocks, and limestone pods". (OF 637)

Fossils have been located with ages from Late Mississippian to upper Triassic from within the same region and most of the massive limestone pods have recently been dated as Triassic.

Immediately south of the Kettle River is outcrop of Jurassic age granodiorite which cuts off the north west trending belt of Thompson Assemblage on the south and south western side. To the north and north west, the Thompson Assemblage is overlain by the Triassic age Nicola group. To the east the rocks merge into the "Shuswap Complex" of highly altered rocks.

The Thompson Assemblage appears to be equivalent to the Slocan Group (and Milford Group) rocks on the east side of Arrow Lake about 75 km (40 m) east in the Tillicum Mountain area. Preliminary evaluation of gold and silver bearing mineralization in the Tillicum-Nakusp district indicates most of the values are located in "skarn" at or immediately above the (paleo) top of lenticular flows of dacitic composition.

#### Local:

The Dona claims cover a large geochemical arsenic and gold anomaly. This anomaly forms the central exploration area of the claims group. All of the 1984 work was concentrated on the anomalies. This reporting years work was concentrated on further exploration of the anomalies.

The geology of the anomalies and surrounding area is that of a

volcanic pile comprising intermediate to acid rocks and ranging from volcanoclastic deposits to flows. The individual flows were altered by epithermal action depending on porosity variations. Thus, one may find the tops of some flow preferably altered as opposed to the bases. Numerous small fractures of diverse orientation, ranging in size to small faults, were also hydrothermally altered. Most of the alterations carry sulfide mineralization. The sulfides are pyrite, arsenopyrite with minor galena, sphalerite, and chalcopyrite.

Quartz veins follow many of the fractures, faults and stratigraphic discontinuities. The quartz veins are also mineralized with the above sulfides. No visible gold has been encountered. The gold is associated not only with the quartz veins but also with the alteration zones.

Beside the above mineralizations, sulfides occur also as disseminations and pods within the individual volcanic deposits. The occurrence of the pod is reminiscent of some low grade massive sulfide deposits.

Interbedded with the volcanics are calcareous deposits. These lime rich horizons have been altered by the hydrothermal fluids to scarns with actinolite and clinozoisite being the common minerals.

The volcanic pile with calcareous interbeds may represent a volcanic arc environment of sub-tropical to temperate climate. Under such conditions sulfur rich fumaroles and hot water vents mineralize the volcanic pile. Thus the geology of the claims area has a potential for economic deposits not only of gold but also of base metals.

The volcanic pile was intruded by dykes and stocks of diorite. The diorite is medium grained and massive. The relationship of the diorite to the mineralization of the area is not known.

## CURRENT INVESTIGATIONS

Extensive trenching through the anomaly area has been done in the past. The results of the previous work are presented by Shannon Grant and F.M. Smith in the report of July 1984. The present report deals only with additional work performed during October 1984.

A total of 390 meters of trenches were dug during October 1984. The locations of the trenches are shown on Figure 3. Access roads rehabilitated or constructed for the trenching are shown by a dash line on Figure 3. The trenches are T84-4, T84-6 and T84-10. Trench T84-4 is comprised of five segments, four of which were sampled and mapped. The results of the sampling and mapping, including the assays, are given on Figure 4 and 5. No high values were encountered, although interesting alterations and sulfide mineralization is present in the trenches.

Trench T84-6 has been sampled but not mapped. The results are shown on Figure 6. No high mineralization was encountered, but some values are interesting.

Trench T84-10 has been sampled and mapped and the results are shown on Figure 7. Again, no high values of gold or silver were encountered.

The assay results of the October 1984 sampling are discouraging. This does not mean that the area under investigation does not have an economic deposit of gold and silver. During previous investigations, it was found that high values of gold and silver were found in trenches #5, #1 and #1a. It is recommended that future exploration be concentrated in the above mentioned areas.



BUDGET

In the 1984 report, F.M. Smith recommends future work in three phases. Phase 1A, trenching and sampling, Phase 1B, preliminary drilling, and Phase 2, developmental drilling. Obviously, trenching and sampling has not produced the desired results. Consequently, Phase 1B and Phase 2 should be postponed until such a time when trenching and sampling exploration will delineate areas or targets for drilling. Thus, it is recommended to repeat Phase 1A-trenching and sampling. The following budget for exploration and drilling is set up following the budget presentation of F.M. Smith of July 1984 report.

Preliminary Work Programme

Phase 1A - Trenching and Sampling

1. Cant trenching and roads @ \$65/hr.	\$ 4,000.
2. Back-hoe trenching on zones	3,000.
3. Truck, travel, mob/demob	3,000.
4. Geology	2,000.
5. Report, supervision, assays	2,000.
6. Room, board and consumables	<u>1,000.</u>
Total Phase 1A	\$15,000

Phase 1B

1. Core drilling, 500 m @ \$80/m (all inclusive)	\$40,000.
2. Cat roads and drill pads	2,000.
3. Supervision and geology	5,000.
4. Room, board and consumables	3,000.
5. Truck, mob/demob, travel	3,000.
6. Reports	2,000.
Contingencies	<u>5,000.</u>
Total Phase 1B	\$60,000.

Total Phase 1A & 1B \$85,000.

Budget (cont.)

Phase II

1.	Diamond Drilling 1,500 m @ \$80/m all inclusive of assays	\$120,000.
2.	Road and drill support	20,000.
3.	Supervision	10,000.
4.	Room, board, consumables, equipment rental	5,000.
5.	Reports ,assessment filing, fees and licenses	10,000.
6.	Truck rental	5,000.
7.	Travel costs	2,000.
8.	Compilation and project evaluation	8,000.
	Contingencies	<u>20,000.</u>
	Total Phase II	\$200,000.
	 Total Phase 1A, 1B, and II	 \$285,000.

BIBLIOGRAPHY

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Jones H.M.

Report on the Exploration Program DONA claim, December 4, 1974

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Summary Report 1973 Field Work, December 6, 1973.

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Geochemical and Geophysical Report on the DONA Group of Claims, November 21, 1973.

Ryback-Hardy, V.

Report on the DONA Group of Claims for Selmet Resources Corp., Oct. 30, 1980

Smith, F.M.

Report on the DONA and Irene claims, for Keefer Resources Inc, July, 1984

EXPENDITURES

1984-85 Fiscal Year:

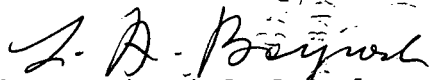
F. Marshall Smith	\$8,913.03
Mohawk Oil Company Ltd.	11,166.60
Bondar-Clegg	330.00
Chemex Labs Ltd. (included in F.M. Smith account)	
Total	<u>\$20,409.63</u>

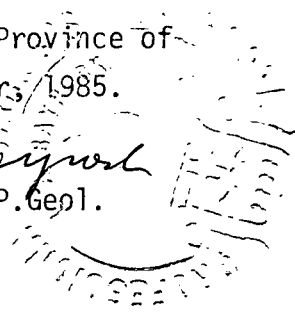
CERTIFICATE

I, L.A. Bayrock, of 1899 Queens Avenue, West Vancouver, British Columbia, certify that:

- 1) I am a registered member of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.
- 2) I graduated from the University of Alberta majoring in geology in 1953, B.Sc., and 1954, M.Sc., I graduated from the University of Wisconsin in 1960, Ph.D.
- 3) I have practiced my profession continuously since graduation.
- 4) Neither I, nor any member of my family has any interest in Keefer Resources Inc.
- 5) I have examined the property on September 21, 1984 and found the workings and the geology to be as shown on the maps produced by F.M. Smith, P.Eng.. I have examined the locations of the samplings and have read previous data on the property.
- 6) This report may be used only for assessment purposes.

Dated at West Vancouver, in the Province of  
British Columbia, this the 27 day of September, 1985.

  
L.A. Bayrock, Ph.D., P. Geol.



Bondar-Cliff & Company Ltd.  
5420 Canotek Rd.,  
Ottawa, Ontario,  
Canada K1J 8X5  
Phone: (613) 749-2220  
Telex: 053-3233



GOLDEN PORPHYRITE  
GOLDEN PORPHYRITE  
403 750 W. PENDER  
VANCOUVER, B.C.  
V6C 2T7

Invoice: 15239  
Date: January 18, 1985  
Report No: 425-0055  
Project: NONE GIVEN

*De Dona PROJECT*

24 Analyses of Silver	at	7.50	180.00	
24 Analyses of GOLD - FIRE ASSAY	at	3.00	72.00	
Subtotal			252.00	252.00
Sample Preparation				
24 Samples of ASSAY PREP	at	3.25	78.00	
Subtotal			78.00	78.00
Invoice Total				\$330.00

★★ FINAL INVOICE ★★

SCHEDULE A

THIS IS A PROFESSIONAL SERVICE  
ACCOUNTS DUE WHEN RENDERED



# Chemex Labs Ltd.

212 Brooksbank  
North Vancouver,  
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Telex: 043-5

Analytical Chemists • Geochemists • Registered Assayers

## CERTIFICATE OF ASSAY

TO : GOLDEN PORPHYRITE LTD.

403 - 750 W.O. PENDER ST.  
VANCOUVER, B.C.  
V6C 2T7

CERT. # : A8417549-01  
INVOICE # : I8417549  
DATE : 13-NOV-84  
P.O. # : NONE

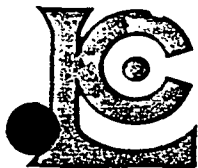
ATTN: MARSHALL SMITH

Sample description	Prep code	Ag FA oz/T	Au FA oz/T				
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10226	207	0.06	0.003	--	--	--	--
10227	207	0.05	0.004	--	--	--	--
10228	207	0.06	0.004	--	--	--	--
10229	207	0.03	<0.003	--	--	--	--
10230	207	0.02	<0.003	--	--	--	--
10231	207	0.04	<0.003	--	--	--	--
10232	207	0.05	0.003	--	--	--	--
10233	207	0.09	0.003	--	--	--	--
10234	207	0.37	0.045	--	--	--	--
10235	207	0.08	0.004	--	--	--	--
10236	207	0.08	0.011	--	--	--	--
10237	207	0.16	0.008	--	--	--	--
10238	207	0.15	0.097	--	--	--	--
10239	207	0.07	0.006	--	--	--	--
10240	207	0.02	0.003	--	--	--	--
10241	207	0.08	0.003	--	--	--	--
10242	207	0.09	<0.003	--	--	--	--
76851	207	0.02	<0.003	--	--	--	--
76852	207	0.57	0.010	--	--	--	--
76853	207	0.05	0.004	--	--	--	--
76854	207	0.06	0.006	--	--	--	--
76855	207	0.06	<0.003	--	--	--	--
76856 T34-E	207	0.14	0.009	--	--	--	--
76857	207	0.06	0.003	--	--	--	--
76858	207	0.02	0.004	--	--	--	--
76859	207	0.23	0.070	--	--	--	--
76860	207	0.16	0.050	--	--	--	--
76861	207	0.20	0.005	--	--	--	--
76862 T34	207	0.08	<0.003	--	--	--	--
76863 "	207	0.51	0.003	--	--	--	--
76864 T943	207	0.14	0.003	--	--	--	--
76865 "	207	0.15	0.003	--	--	--	--
76866 "	207	0.22	0.004	--	--	--	--
76867	207	0.04	0.005	--	--	--	--
76868	207	0.04	0.003	--	--	--	--
76869	207	0.01	0.005	--	--	--	--
76870	207	0.02	<0.003	--	--	--	--
76871	207	0.08	0.004	--	--	--	--
76872	207	0.05	0.003	--	--	--	--

*Anne Christie*

Registered Assayer, Province of British Columbia





# Chemex Labs Ltd.

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## CERTIFICATE OF ASSAY

TO : GOLDEN PORPHYRITE LTD.

403 - 750 W.D. PENDER ST.  
VANCOUVER, B.C.  
V6C 2T7

CERT. # : A8417549-002-  
INVOICE # : I8417549  
DATE : 13-NOV-84  
P.O. # : NONE

ATTN: MARSHALL SMITH

Sample description	Prep code	Ag FA oz/T	AU FA oz/T				
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76877	207	0.02	<0.003	--	--	--	--
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76879	207	0.03	<0.003	--	--	--	--
76880	207	0.02	<0.003	--	--	--	--
76881	207	0.01	<0.003	--	--	--	--
76882	207	0.03	<0.003	--	--	--	--
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76887	207	0.08	<0.003	--	--	--	--
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76889	207	0.06	0.013	--	--	--	--
76890	207	0.05	0.009	--	--	--	--
76891	207	0.11	0.043	--	--	--	--
76892	207	0.05	0.006	--	--	--	--
76893	207	0.05	<0.003	--	--	--	--
76894	207	0.03	<0.003	--	--	--	--
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76896	207	0.11	0.003	--	--	--	--
76897	207	0.07	<0.003	--	--	--	--
76898	207	0.06	<0.003	--	--	--	--
76899	207	0.06	<0.003	--	--	--	--
76900	207	0.06	<0.003	--	--	--	--

*Annie Christie*

.....  
Registered Assayer, Province of British Columbia





F. MARSHALL SMITH CONSULTING INC.

6580 MAYFLOWER DRIVE, RICHMOND, B.C. CANADA V7C 3X6  
 TELEPHONE (604) 271-6556

115 - 100 WEST GROVE STREET  
 RENO, NEVADA, USA 89509

# INVOICE

TO: Keefer Resources Inc.  
 \$1410-650 W. Georgia Street  
 Vancouver, B.C.  
 V6B 4N8

DATE: February 20, 1985

INVOICE No.: 85-13

DESCRIPTION:

COSTS:

Total days - 13 days  
 Room  
 Travel  
 Vehicle  
 Materials  
 Assays  
 Report

12.94	
429.75	
960.18	
95.75	
1,026.63	
<u>1,387.78</u>	8,913.03

Advance

4,500.00

Please pay this amount. \$4,413.03

BALANCE DUE UPON RECEIPT OF THIS INVOICE

Interest at 2% per month charged against Overdue Accounts



# MOHAWK OIL CO. LTD.

MINING DIVISION  
PLEASANT VALLEY ROAD  
BOX 610, VERNON, B.C. V1T 6M6  
PHONE 545-3301 • TELEX 048-85365

November 15, 1984

INVOICE

#40369

Keefler Resources  
1410 - 650 West Georgia Street  
P.O. Box 11563, Vancouver Center  
VANCOUVER, B.C.  
V6B 4N6

Attention: Dan Small

RE: DONA CLAIMS - KEEFER LAKE RESOURCES

October 12 - 25, 1984

D6C - 46 hrs @ \$70/hr	\$ 3,220.00
FL9 Backhoe - 46 hrs @ \$65/hr	2,990.00
Travel Time - 2 hrs/day @ \$15/hr -- 24 hrs	360.00
Standby Time - 6 hrs @ \$15/hr	90.00
Mob-Demob - 16 hrs @ \$15/hr	240.00
1 Geologist - 3½ days @ \$125/day	437.50
1 Geologist - 4 days @ \$150/day	600.00
Room & Board - 20 man days @ \$61.75/day	1,235.00
Marshall Smith - 4 man days @ \$61.75/day	247.00
VEHICLE CHARGES - flat rate for on-site vehicles	
1 Ford 4x4 - 7 days @ \$75/day all inclusive	525.00
1 Crewcab 4x4 - 3 days @ \$75/day all inclusive	225.00
-Day rate + kilometer & gas charge	
1 Dodge 4x4 - 1 day @ \$45+(394 kilo's x .18)+ 0 fuel	115.92
1 GMC 4x4 - 1 day @ \$45+(192 kilo's x .18)+ \$30 fuel	<u>109.56</u>
SUB-TOTAL	\$10,394.98

Page 2

Invoice #40369

	\$10,394.98
1 Lowbed Truck Vernon - Kettle - Keefer Lake @ \$54/hr -- 6½ hrs	351.00
1 Lowbed Truck Vernon - Keefer Lake - Kettle @ \$54/hr -- 6½ hrs	351.00
Freight - samples	<u>69.62</u>

TOTAL \$11,166.60

OK  
J.A.  
Nos

Net 30 days (1.5 per cent monthly)

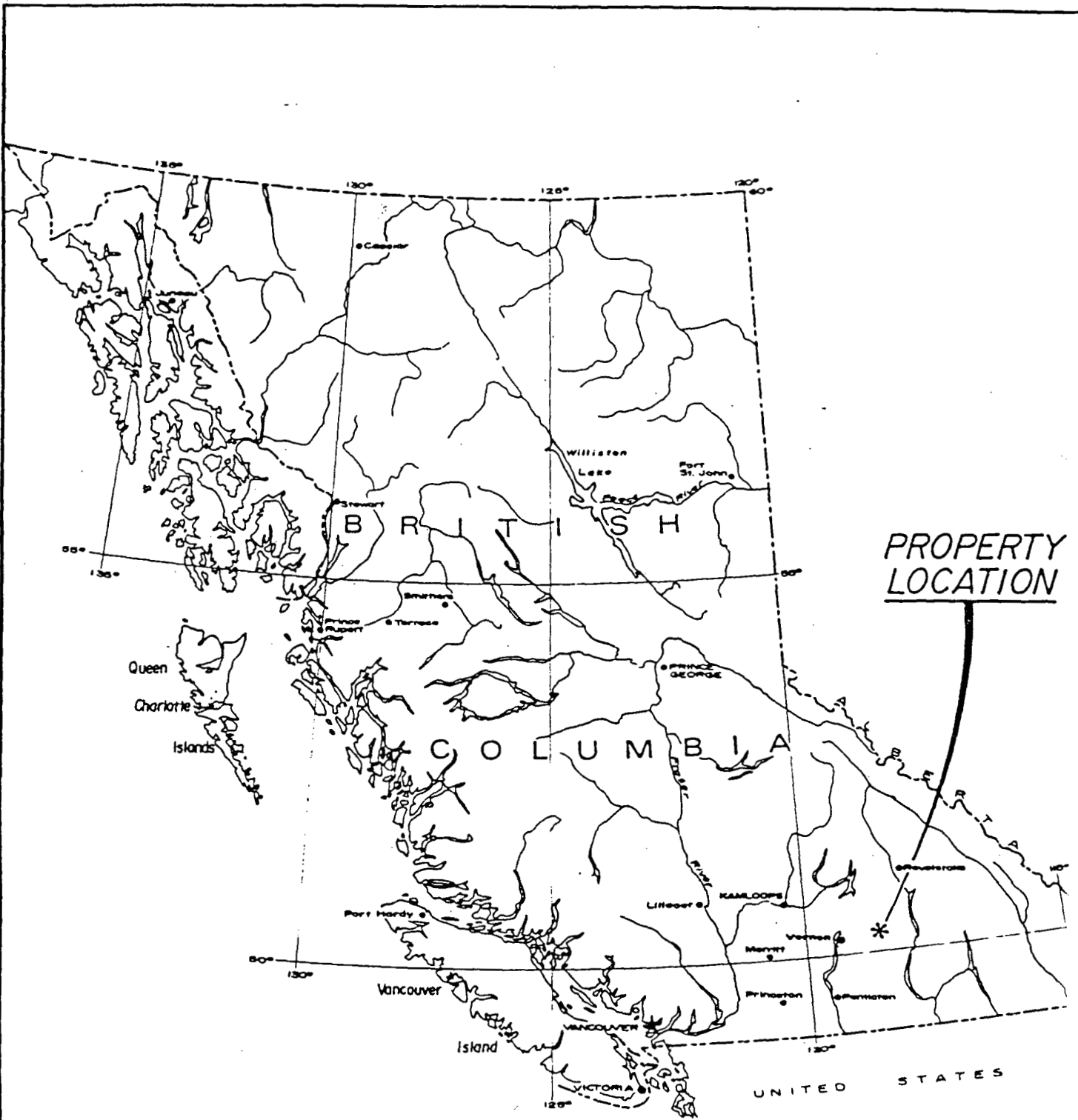
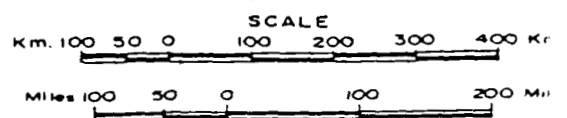


FIGURE 1

DONA MINERAL CLAIMS  
LOCATION MAP



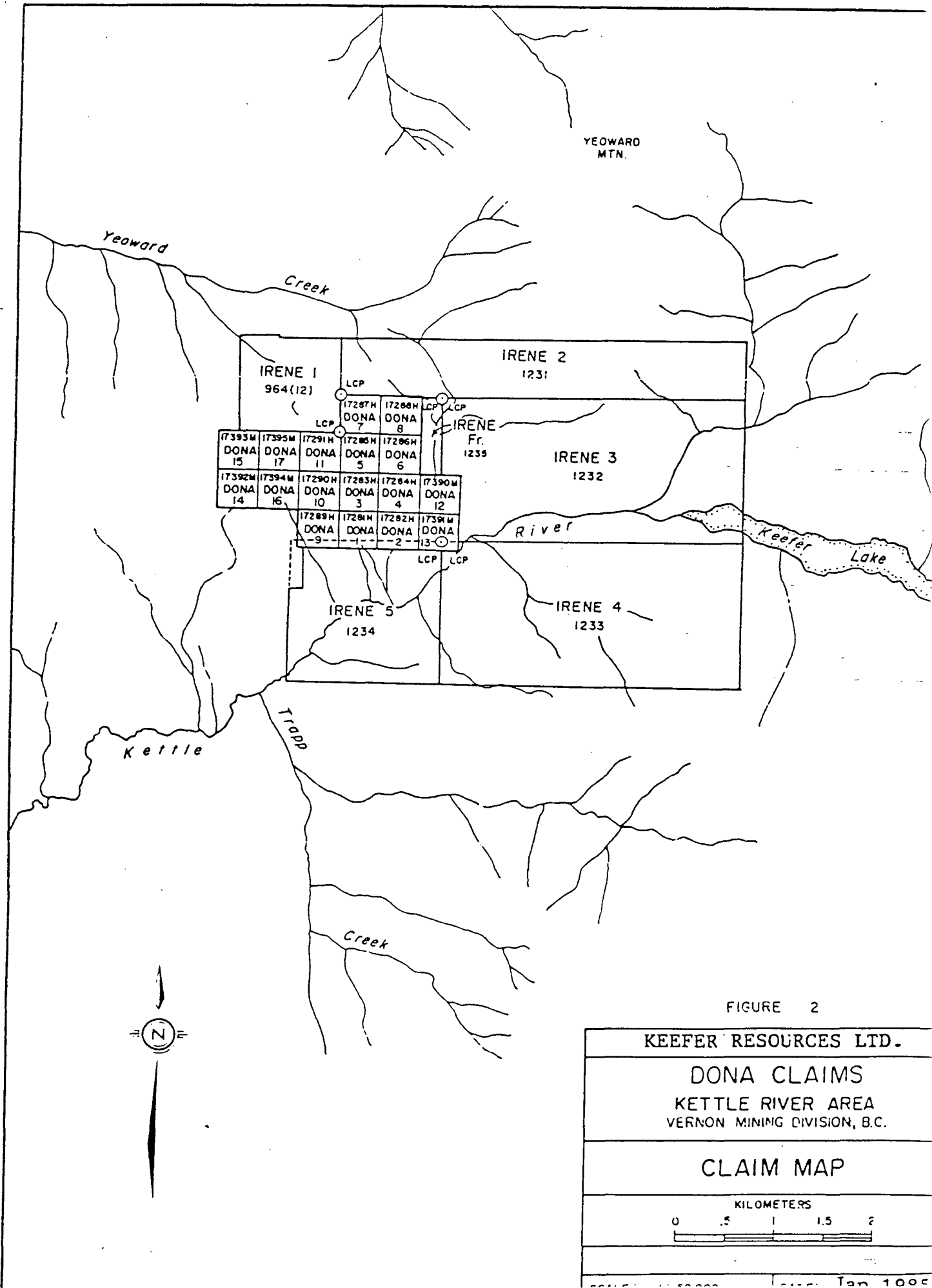


FIGURE 2

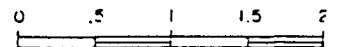
KEEFER RESOURCES LTD.

DONA CLAIMS

KETTLE RIVER AREA  
VERNON MINING DIVISION, B.C.

CLAIM MAP

KILOMETERS



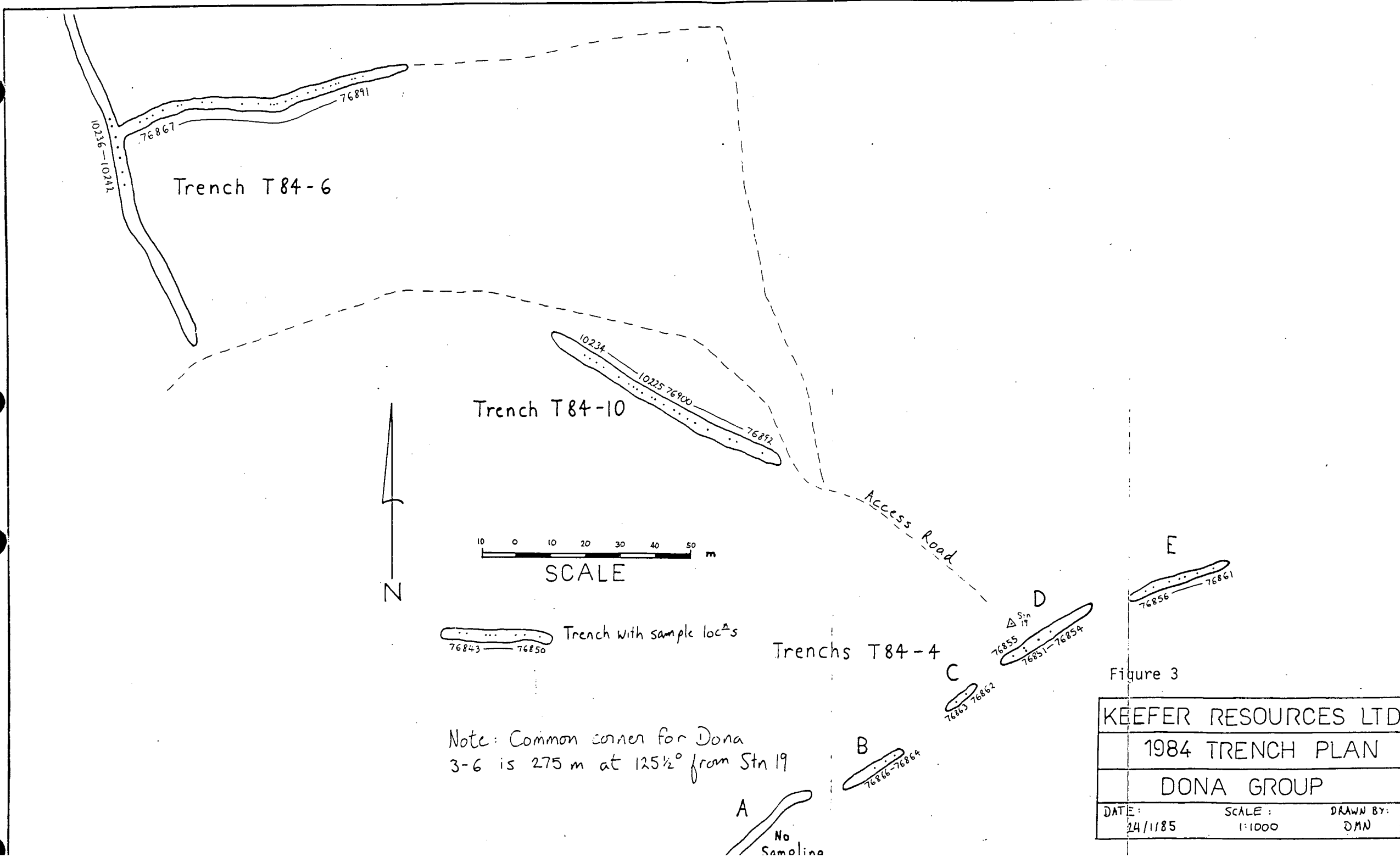
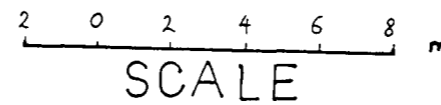
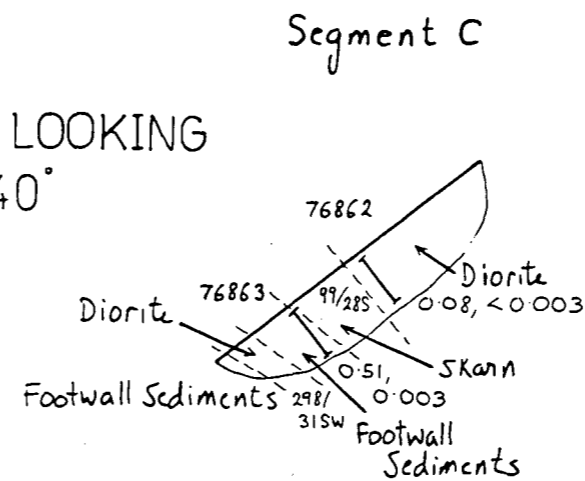


Figure 3

KEEFER RESOURCES LTD		
1984 TRENCH PLAN		
DONA GROUP		
DATE:	SCALE:	DRAWN BY:
24/1/85	1:1000	DMN

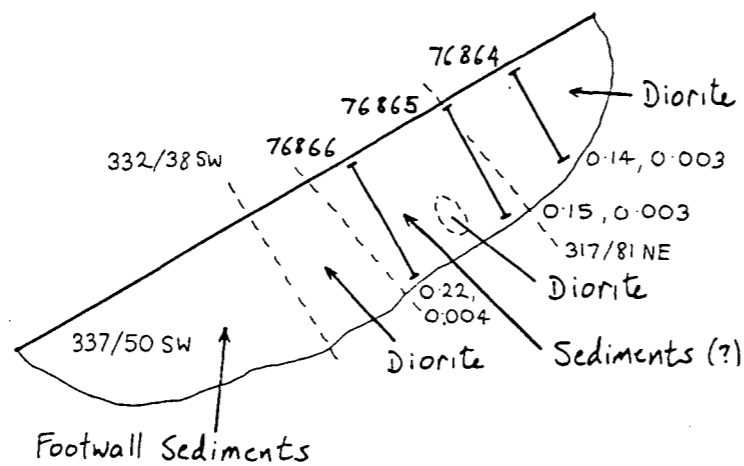
Vertical scale 2x horizontal scale

SECTION LOOKING  
~ 140°



103/84 N Altitude  
Geological Contact  
78634 Sample #  
0.01 0.003 03/T Ag, 03/T Au

Segment B



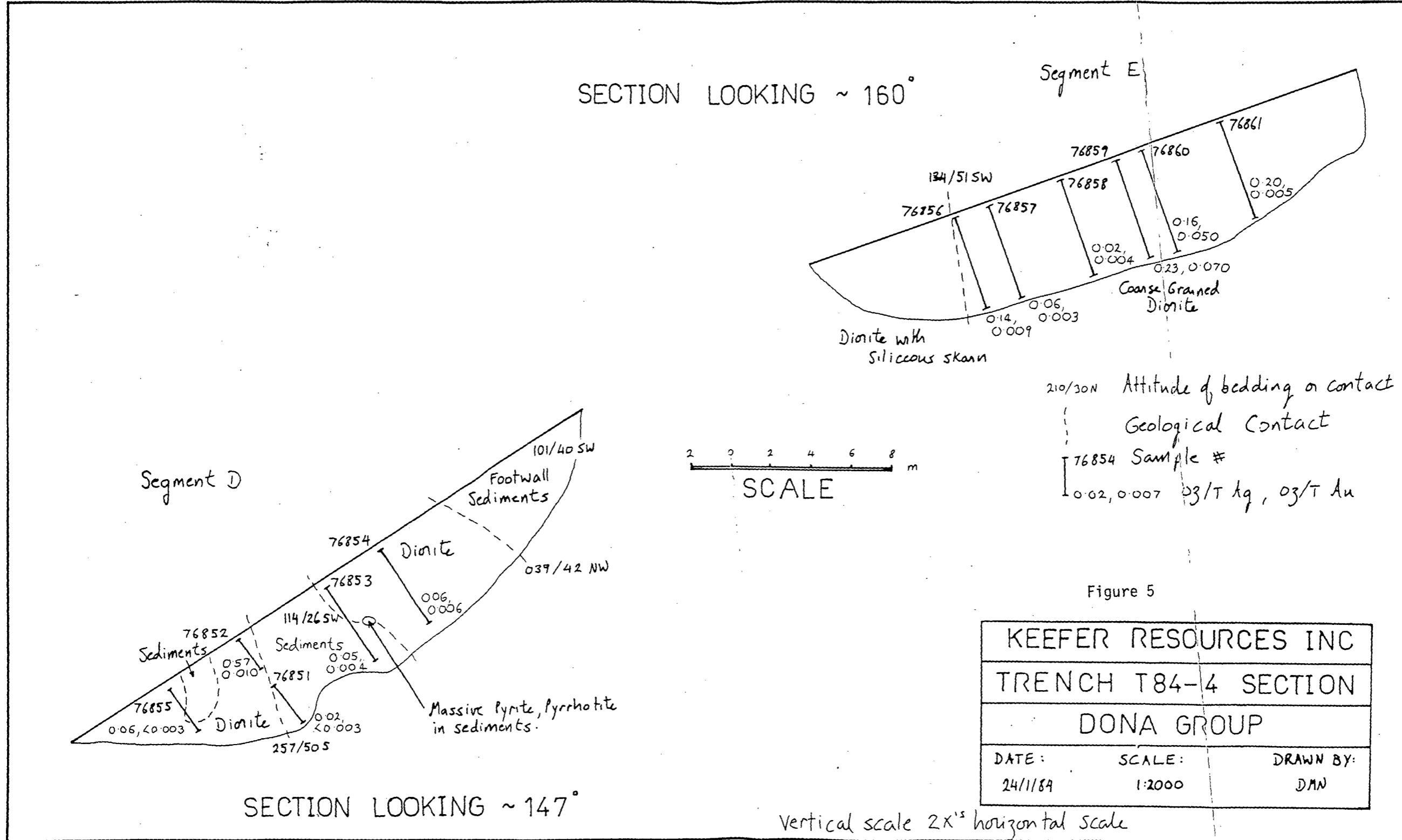
SECTION LOOKING ~ 150°

Figure 4

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**14,567**

14,567





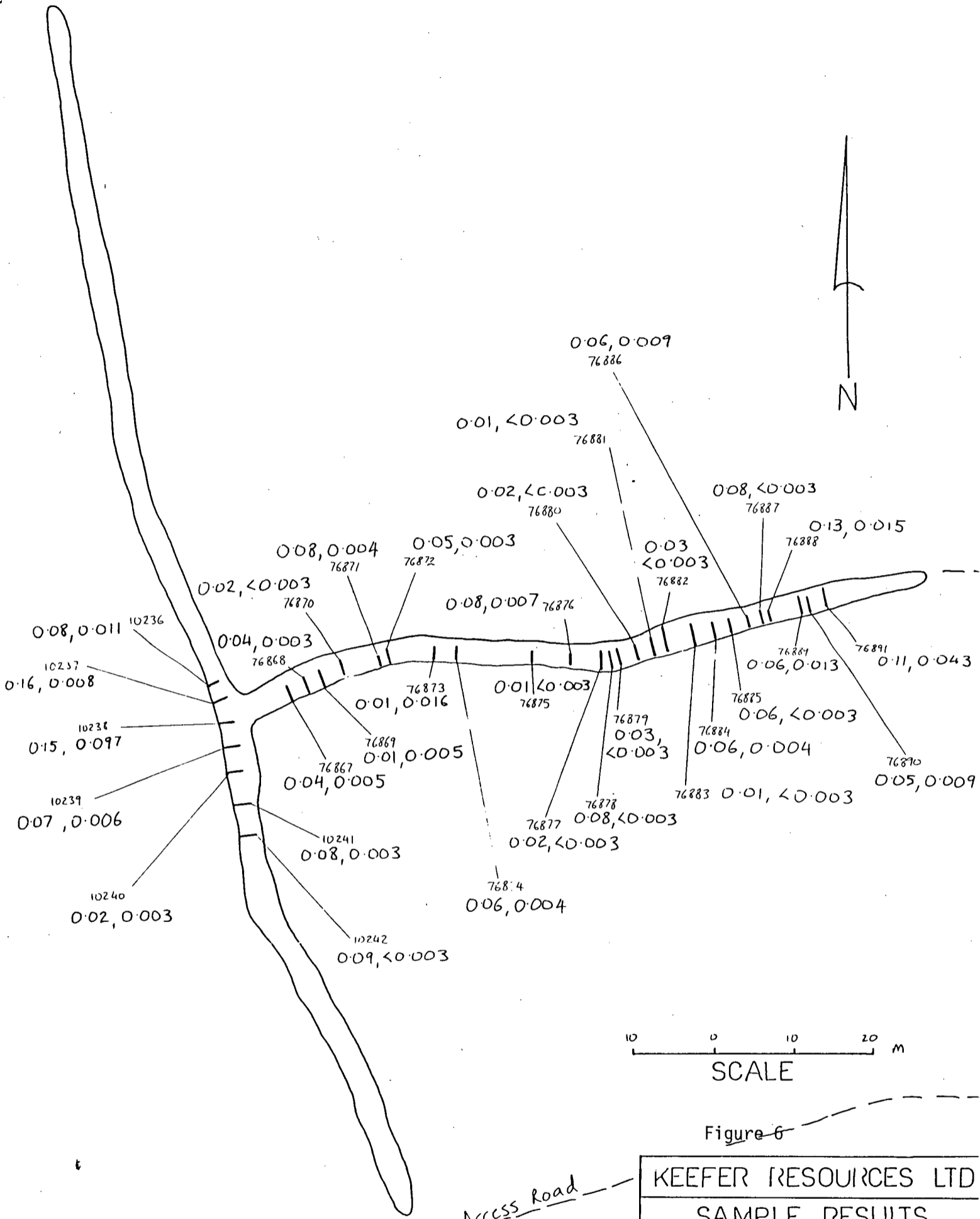


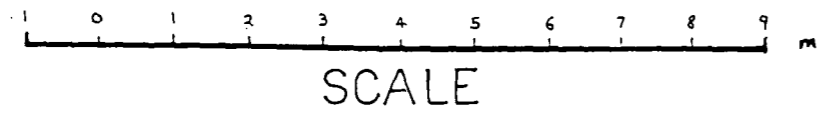
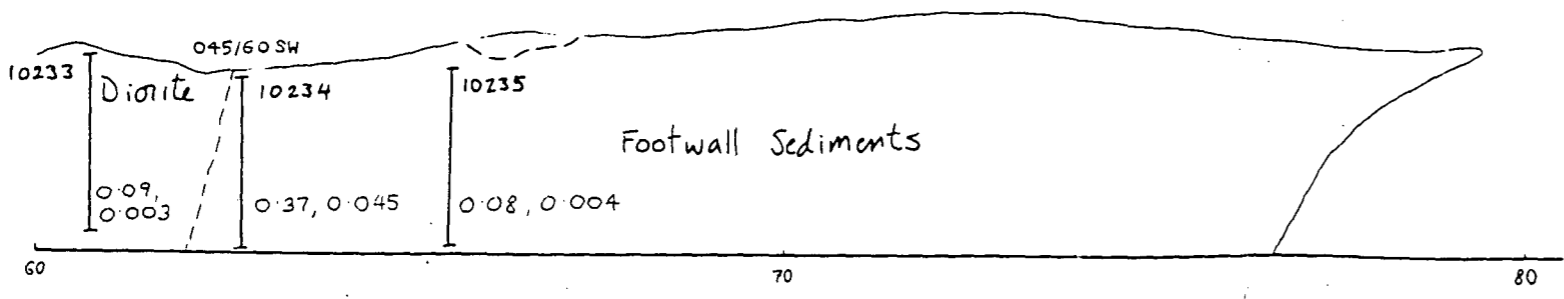
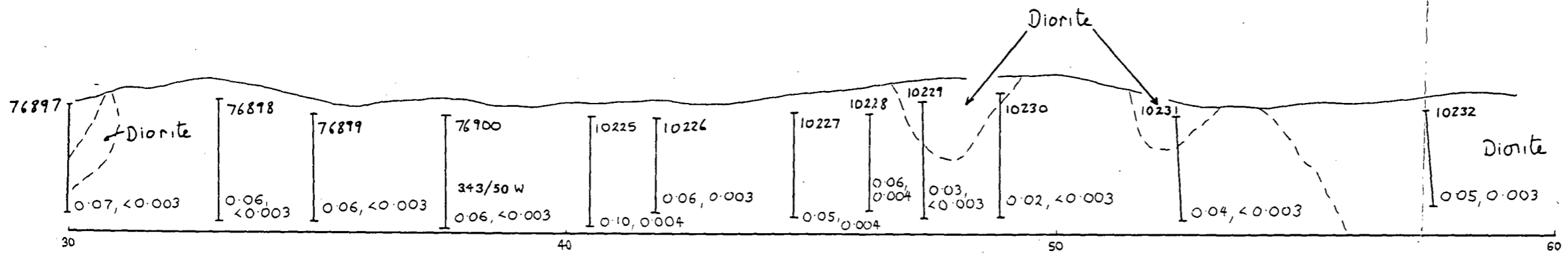
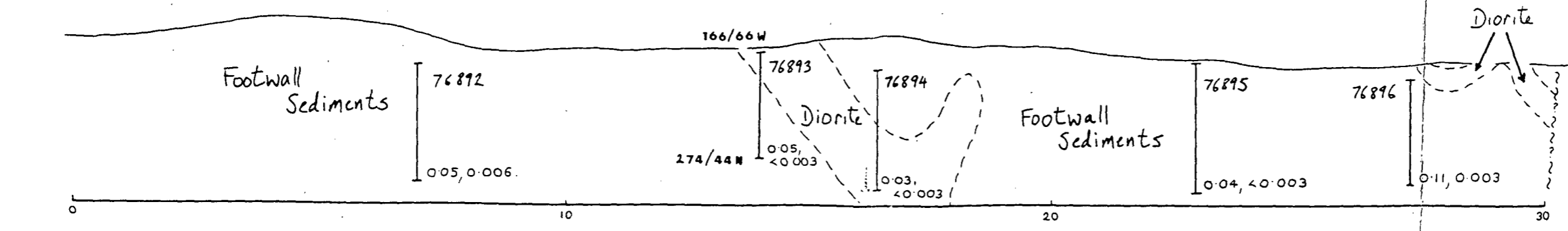
Figure 6

10242 Channel sample #  
0.03, 0.014 O<sub>3</sub>/T Ag, O<sub>3</sub>/T Au

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

KEEFER RESOURCES LTD		
SAMPLE RESULTS		
TRENCH 84-6, DONA GROUP		
DATE:	SCALE:	DRAWN BY:
24/1/85	1:500	DMN

14,567



312/24W Attitude of bedding or contact  
Geological Contact.

10220 Sample #  
0.02, 0.003 Sample Results: 03/T Ag, 03/T Au

Figure 7

KEEGER RESOURCES INC		
TRENCH T84-10 SECTION		
DONA GROUP		
DATE:	SCALE:	DRAWN BY:
24/1/84	1:1000	DMN

SECTION LOOKING ~ 210°

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

14,567