



31M13NW0020 63.5877 CATHARINE

010

COOK-GAMBLE PROPERTY  
CATHARINE TOWNSHIP  
LARDER LAKE MINING DIVISION

FILE No. OP90-325

FILE No. OP90-326

## REPORT ON DRILL PROGRAMME

### DRILL OBJECTIVES

The drilling objectives were threefold. Placing the DDH 90-01 where three targets could be tested was done to maximize the usefulness of a single hole program.

First it was hoped to test the extension of the # 14 Vein and enclosing altered wall rocks. No good cross section through this vein had been encountered in the research available at the Resident Geologist's office. From old reports and previous assays it is known that this is a gold bearing vein with a width of approximately 40 feet and a strike length of over 800 feet, and a depth of at least 500 feet.

The source of the VLF EM conductor as outlined by Kennco Explorations in 1981 when they had optioned the property from the current holders was to be tested and explained. It was thought that from the maps of the old underground workings of the mine that this conductor could represent a 30' wide shear zone as described in old reports and as plotted on a plan of the underground workings. There is no record of any assays or work done on this shear zone. It could possibly be a gold bearing structure. It is traceable as a geophysical conductor on the Kennco reports for 1/4 to 1/2 a mile, and was not drilled by Kennco during their option of the property.

It was also thought that the extension of the #12 vein to the west of the shaft would be tested. The # 12 vein, from old reports, was thought to have the greatest potential as a possible economic source of gold.

The hole was collared at 9+ 50 S and 6+60 E. The azimuth was set at 328° and the dip was drilled at -45°. This orientation of the hole would allow all three tests to be conducted. Originally 600 feet of drilling was proposed.

### ACTUAL DRILLING

The drilling was carried out during the week of September 17, 1990 by Heath and Sherwood Drilling. (See Drill Logs ). The first and second targets of the drill program were encountered as calculated, however the third target of the hole was not found. Drilling was carried out to a depth of 755 feet, 155 feet beyond the original proposal.

## CORE LOGGING

Logging of the drill core was completed during the period of September 23, 1990 to October 4, 1990. The hole was described in great detail and was sampled extensively with 43 samples taken for assay. (23 more than the original proposal) Particular interest was given to the shear zones where gold and/or chalcopyrite was observed using a lens. The v.g. and/or chalcopyrite was generally located on the shears, and although assays confirmed the presence of gold the values were lower than expected.

The drill logs were filed for assessment work, and the core was stored at the Durocher-Gamble farm in Marquis Township where it will be kept for later study.

## FINAL RESULTS

The #14 Vein was encountered at approximately 233 feet down hole. Its width in the core was 37.5 feet which is close to true thickness when considering the hole is at  $-45^\circ$  and the dip of the vein is assumed to be  $72^\circ$  S. The width of this vein and its depth and extent makes it a potential source of silica flux for a smelter in addition to its gold potential.

The VLF conductor was encountered at approximately 480.5 feet. It was represented by an extremely broken rubble and fault breccia zone in andesite containing small amounts of pyrite, chalcopyrite and/or visible gold. (See Drill Logs). This fault breccia zone was fairly wide extending from 480.5 feet to 578.5 feet with a rubble and clay gauge zone from 509 feet to 519 feet.

The third target, the extension of the #12 Vein, west of the old shaft was not encountered. In an attempt to hit it, drilling was extended to 755 feet. This distance plots well beyond where the hole should have encountered a vein dipping to the south or dipping at  $90^\circ$  ( see plan of drill hole). It is known from old reports that the #12 Vein, on which the shaft was sunk straightens up from its southerly dip and enters the footwall of the shaft. Since the drilling did not encounter the #12 vein west of the shaft the following possibilities could be concluded: 1) that the #12 vein is not continuous to any great extent to the west; and/or 2) that the #12 vein was faulted off; and/or 3) the #12 Vein actually changes its dip and rolls to the north and therefore could not be encountered in this hole.

DDH 90-01 was a success because it encountered two out of three targets. It also helped define the extent of the #14 Vein. The VLF conductor as outlined by Kennco in 1981 was proven to be a wide brecciated and shear zone. Although the results of the assays were not encouraging, they do confirm that the veins and the fault zone do carry gold. The property as a whole has not received enough drilling to fully evaluate its potential for gold or for silica.

## RECOMMENDATIONS

It is recommended that further drilling be carried out, and that a choice of drill targets be based on one or more of the following criteria:

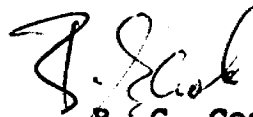
1) Drilling a similar DDH to 90-01 to encounter the # 12 vein to the east of the shaft be carried out. This DDH could be set back far enough that it could also encounter the #14 vein and part of the #13 vein. This hole would also cut the VLF conductor, and would hopefully penetrate the #12 vein at depth. (Excellent assays were reported on the #12 Vein at the 200 foot level in old reports.)


2) Results of the ongoing surface mapping and sampling be analyzed to determine if the "North Zone " warrants drilling. This zone is a zone of quartz veins bordered by extremely altered and pyritized wall rocks. Recent stripping has exposed very heavily rusted alteration on rocks never before exposed or sampled.

3) The VLF conductor - shear zone - could be tested to the west where there are surface indications of it being flanked by quartz veins to the north and to the south, to see if the shear zone has greater potential in this area. Some thought should be given to testing the shear zone at points where it might be assumed to be intersecting a north-south fault, or where it might intersect the # 14 Vein.

4) The great number of quartz veins present on this property make its potential for silica flux very important. Further drilling for gold potential could take into consideration evaluation of the extent of vein structures for this purpose.

Respectfully submitted,

  
B. G. Cook

  
S. A. Gamble

October 22, 1990



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Page 1 of 2

0W-1495-RA1

## Assay Certificate

Company: **SUE GAMBLE/B.G. COOK**

Project:

Attn:

Date: **OCT-09-90**

Copy 1. 70 FIRST STREET KIRKLAND LAKE, ONT.

We hereby certify the following Assay of 41 CORE samples submitted OCT-04-90 by .

Sample Number	Au oz/ton	Au check oz/ton
7201	Nil	
7202	Nil	Nil
7203	Nil	
7204	Nil	
7205	Nil	
7206	Nil	
7207	Nil	
7208	0.002	
7209	0.002	
7210	Nil	
7211	0.005	
7212	0.002	
7213	0.002	
7214	0.002	Nil
7215	0.002	
7216	Nil	
7217	Nil	
7218	0.002	
7219	Nil	
7220	0.002	
7221	Nil	
7222	Nil	
7223	Nil	
7224	0.003	
7225	0.002	0.002
7226	Nil	
7227	Nil	
7228	0.002	
7229	Nil	
7230	Nil	

Au was determined using 1 AT fusions

Certified by

  
G. Lebel / Manager

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300



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Assaying - Consulting - Representation

Page 2 of 2

0W-1495-RA1

## Assay Certificate

Company: SUE GAMBLE/B.G. COOK

Project:

Attn:

Date: OCT-09-90

Copy 1. 70 FIRST STREET KIRKLAND LAKE, ONT.

We hereby certify the following Assay of 41 CORE samples submitted OCT-04-90 by .

Sample Number	Au oz/ton	Au check oz/ton
7231	Nil	
7232	0.002	
7233	Nil	
7234	0.002	
7235	Nil	
7238	Nil	Nil
7239	Nil	
7240	Nil	
7241	Nil	
7242	Nil	
7243	Nil	

Au was determined using 1 AT fusions

Certified by

G. Lebel / Manager

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Metallic Assay Certificate

0W-1496-RM1

Company: SUE GAMBLE / B.G. COOK

Date: OCT-09-90


Project:

Copy 1. 70 FIRST STREET KIRKLAND LAKE, ONT.

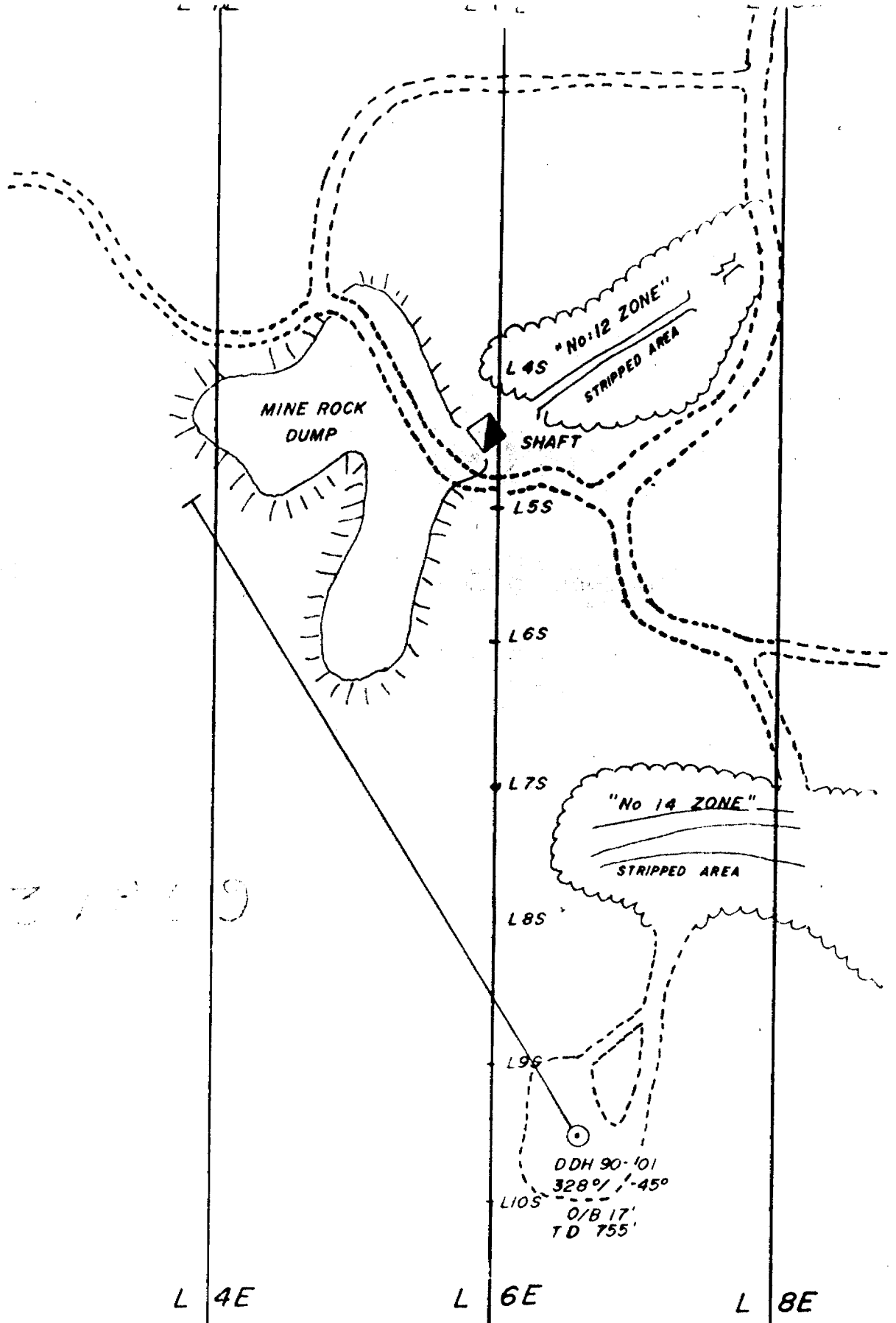
Attn:

We hereby certify the following Metallic Assay of 02 CORE samples submitted OCT-04-90 by .

Sample Number	Total Wt (g)	+100 M Wt (g)	Assay Value Au		Total Weight Au		Metallic Au		Net Au	
			+100(g/t)	-100(g/t)	+100(mg)	-100(mg)	(oz/ton)	(g/t)	(oz/ton)	(g/t)
7236 "VG"	879.75	1.95	0.01	0.07	0.000	0.061	0.000	0.00	0.002	0.07
7237 "VG"	304.14	0.34	0.01	0.01	0.000	0.003	0.000	0.00	0.000	0.01

Certified by   
 \_\_\_\_\_  
 G. Lebel / Manager

L 2E



L 537969

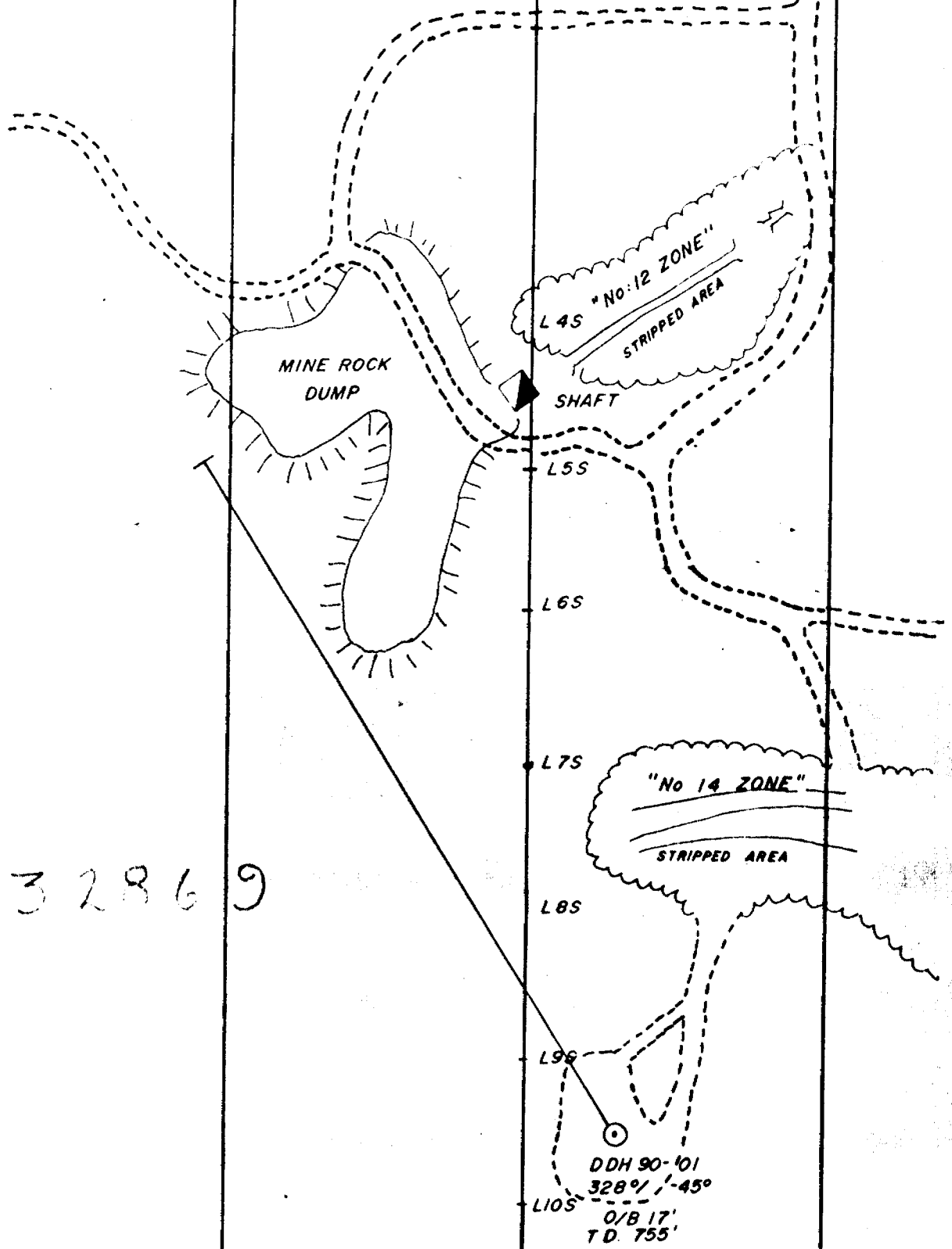
COOK-GAMBLE PROP  
 CATHARINE TWP  
 LOCATION DDH 90-01

L 2E

L 4E

L 6E

L 8E



L 532869

L 2E

L 4E

L 6E

L 8E

COOK-GAMBLE PROP.  
CATHARINE TWP.  
LOCATION DDH 90-01





31M13NW0020 63,5877 CATHARINE

900

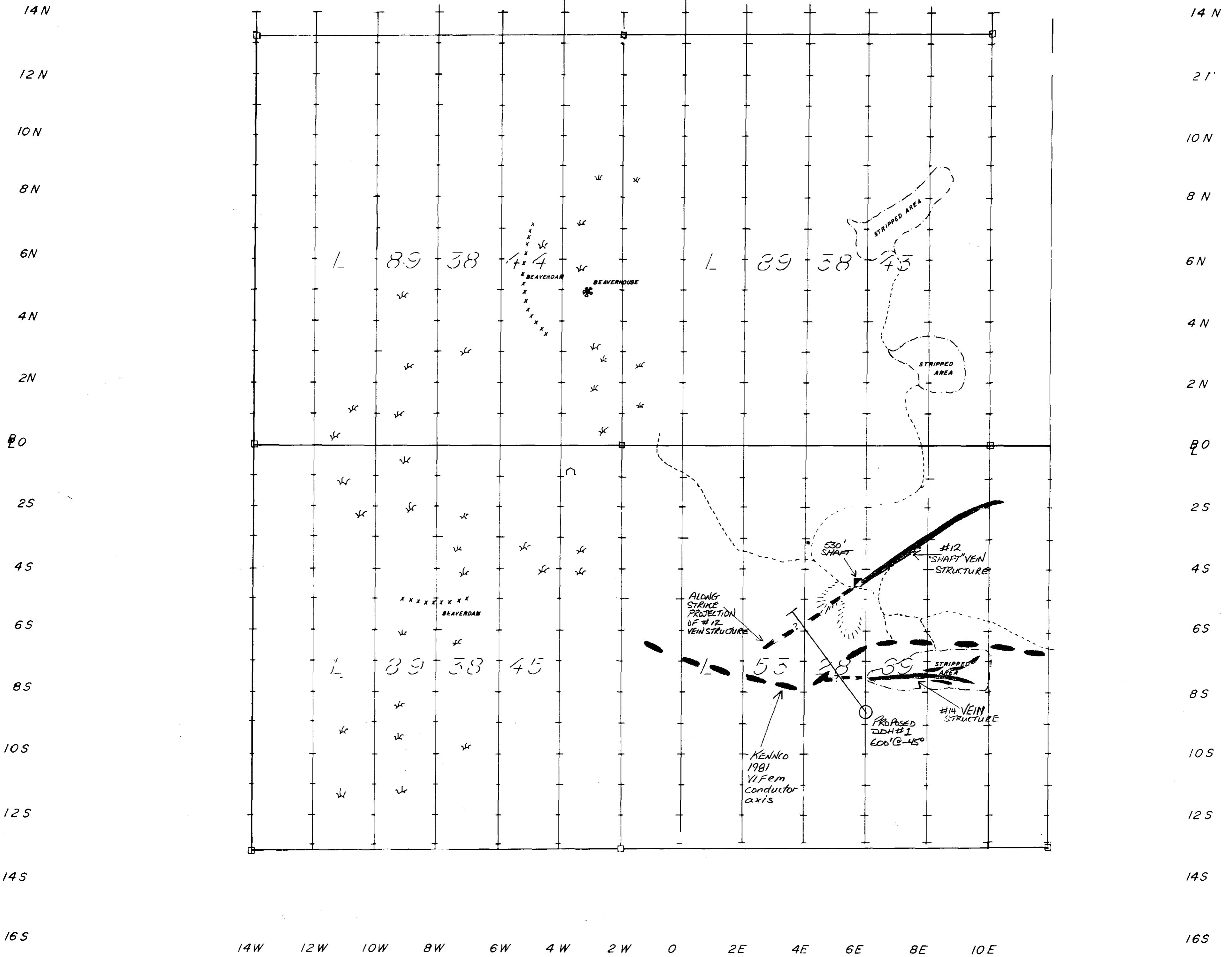
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DM OP 90-325

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

DDH 90-1 log by Beverly Cook → see Catharine Twp  
and Susan Gamble, Sept-Oct/90 DO Report #41  
ROW # W9008.333

14W 12W 10W 8W 6W 4W 2W 0 2E 4E 6E 8E 10E



CATHARINE TOWNSHIP

CON IV

CON III

CON II

LOT 7 LOT 6

KEY PLAN: SCALE: 1 INCH = 2640 FEET

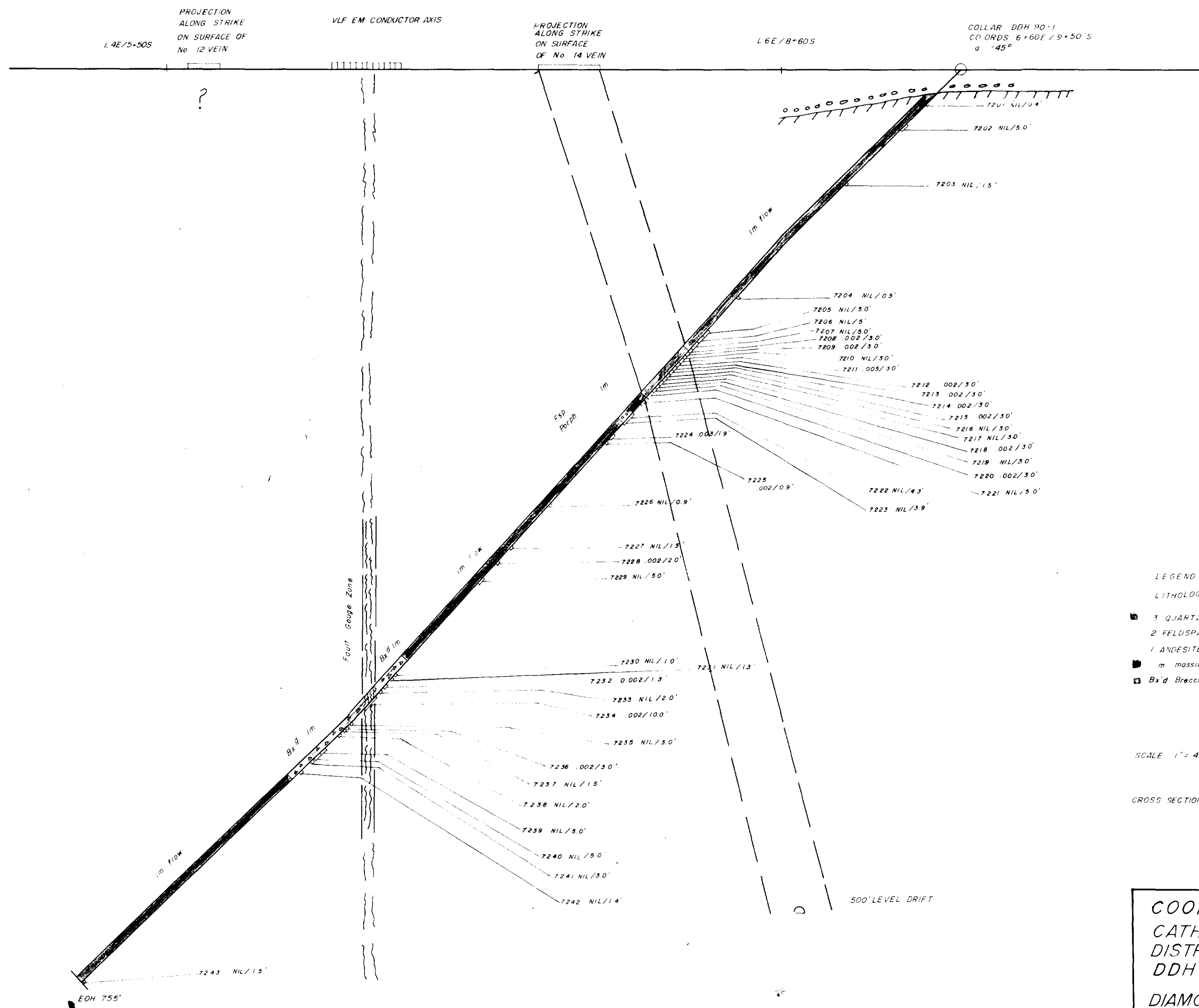


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RE: COOK  
 E. WRIGHT HAKORENCO  
 KIRKLAND LAKE, ONT  
 CANADA

13.5811

COOK - GAMBLE CLAIMS  
 CATHARINE TOWNSHIP  
 L 532869 L 893843  
 L 893844 L 893845



- LEGEND
- LITHOLOGIES
- 3 QJARTZ VEIN
  - 2 FELDSPAR PORPHYRY
  - 1 ANDESITE SEQUENCE
  - m massive flow
  - Bx'd Brecciated massive flow

SCALE 1" = 40'

CROSS SECTION LOOKING EAST

63.5871

COOK GAMBLE PROP  
 CATHARINE TOWNSHIP  
 DISTRICT OF TIMISKAMING  
 DDH 90-1

DIAMOND DRILL SECTION  
 LOOKING EAST

OP90-325 OP90-326

