

REPORT ON PROPOSED EXPLORATION PROGRAM
1971

ANVIL MINING CORPORATION LIMITED

PELLY RIVER MINES LTD.

018852

M E M O R A N D U M

TO: N. G. Cornish

FROM: M. O. Hampton

DATE: November 27, 1970

SUBJECT: REPORT ON PROPOSED EXPLORATION PROGRAM 1971
ANVIL MINING CORPORATION LIMITED
PELLY RIVER MINES LTD.

INTRODUCTION

The October 28 Board of Directors' Meeting decided a meeting would be held among Dynasty, Cyprus and Anvil exploration departments to review the proposed 1971 program. This meeting was held October 28 in Anvil's Vancouver office with J. Hanson, C. Mark and P. Sawyer from Cyprus, A. Aho and J. Brock from Dynasty, and R. Thurmond, J. Olk and M. Hampton from Anvil in attendance. At this meeting it was decided some people from Cyprus and Dynasty would come to Faro to review with myself the explorations data accumulated to date and make suggestions of changes, additions, or deletions from the exploration program as proposed for 1971.

Drs. Aho, Sawyer and Simpson arrived in Faro November 10 and spent two days with me going over the data and discussing various alternatives. A short meeting was held with R. E. Thurmond and this group on November 12 to review the decisions.

It was agreed that the emphasis should be placed on the S.E. side of the Anvil Batholith, where it is known over 80 million tons of sulphides containing economic grades of Pb and Zn occur in five deposits scattered along a 16 mile belt. It is, obviously, along this belt that it is most likely to find additional tonnage. With this in mind it was decided to postpone the required work on the TED and RAM Groups and hold the minimum key claims by cash payment. Drilling on these properties would be very expensive due to the distance from Faro Minesite (15 and 25 miles) and the required helicopter support.

PROPOSALS

The proposals to continue exploration of the area S.E. of the Anvil Batholith are:

- (1) To carry out a detailed structural and petrographic study of the Faro orebody to determine ore-controls, oregogenesis and exploration parameters applicable to the known orebodies and other areas.
- (2) To check, correlate and extend the geochemical data over the area of Anvil ground west of Blind Creek. This is to explore at present unknown areas and determine metal ratio and other element factors over the Faro orebodies which may be of aid in locating other orebodies.

A flag and compass 1000' x 200' soil sample grid (approximately 350 line miles) is to be laid out over this area. Every other sample will be analyzed initially for Cu, Pb and Zn. The remaining samples will be analyzed and fill in samples taken in indicated anomalous areas. Areas having previous grids may only require a few check lines.

- (3) To carry out bedrock geochemical sampling (using available DDH material) to determine presence or otherwise of a recognizable geochemical aureole around the Faro orebodies and any other useful geochemical exploration parameters.
- (4) To carry out an overburden and bedrock sampling drill program in known and extrapolated favourable geological areas. This is to investigate both known geochemical and geophysical targets and areas of deep overburden where conventional surface exploration methods are of little value. This work will add to the knowledge of the bedrock geology and provide assessment coverage over areas of favourable potential. The geochemical parameters that are established will be utilized in analyzing the data provided from this program.
- (5) To up-date geological map of the area using all available and proposed collection data as it becomes available. Study available data and air photographs in an attempt to prepare a surficial pleistocene geology map to aid direction of O/B drill program.

- (6) To provide follow-up gravity and/or other geophysical methods in geochemically anomalous areas indicated by above, particularly where overburden depths become known from drilling data.
- (7) To complete airborne magnetometer survey over the area missing on the Lockwood survey in Swim Lake area to provide correlating data for an overall geological map based on outcrop and borehole bedrock sampling data. This is to be done only if the equipment is available in the area.
- (8) To explore the possibility of acquiring control of orebodies and claims held by Kerr - Addison.

IMPLEMENTATION

The implementation of the proposals would require the following exploration staff:

- (1) Experienced (8 - 10 yrs. post grad.) structural/metamorphic petrologist, preferably with base metals exploration experience. To control overall research program and collaborate with the other exploration people to use the findings to locate additional orebodies. Required for a minimum of a two year appointment.
- (2) Experienced exploration geologist (5 - 6 yrs. post grad.) to co-ordinate and supervise geochemical and drill programs and collaborate with others on formulation of future exploration plans.
- (3) Drill supervisor (probably only for the period that drilling is actually in progress). Several years of drilling and supervisory experience with the knowledge and desire of obtaining accurate samples and efficiency. Reporting to 2.

- (4) Possibly one Ph.D. candidate (preferably with exploration field experience) to carry out regional and/or detailed metamorphic/stratigraphic studies under direction of 1.
- (5) Two or three experienced field assistants to implement proposed soil sampling program. Under 2
- (6) Consulting Geochemist (suggest P. Bradshaw of Barringer Research) to supervise, co-ordinate and advise on initial orientation program on bedrock and soil geochemical data (2 - 3 weeks).
- (7) Consulting Structural/Metamorphic Geologist. Only if (1) above is not available.

Other personnel required would be the contract drillers personnel, and supporting personnel such as bulldozer operator, etc., depending on what the contractor is responsible for in final contract. Another area not finalized at present is whether or not Anvil will be doing it's own geochemical analysis, if so, operating personnel will be required.

Immediate activities by way of implementation of this plan are to recruit the necessary personnel and arrange for the required equipment. To these ends, prospective candidates are being advertized for and drilling contractors are being asked for proposals. At the time of writing, two of three interested drilling contractors have been in to discuss the project and look over the terrain. One of these contractors has submitted a proposal and those of the others are expected. Drilling will start as early in the new year as equipment can be organized to take advantage of the frozen ground for winter travel.

Barringer Research have been contacted and Dr. P. Bradshaw may be coming to Faro during the first week in December, although a conflict from a prior committment may arise preventing this.

Submitted herewith are the tentative Engineering Department organization chart, budget, index map of geophysical and geochemical work to date and geological maps showing proposed drilling.



M. O. Hampton
Chief Engineer

MOH/mm

cc. Cyprus Exploration - Vancouver
Dynasty Exploration - Vancouver
R. E. Thurmond
J. W. Mossop

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1971 EXPLORATION

O/B - Bedrock Drill Program	\$ 225,000
Gravity (20 miles @ \$5.00)	10,000
Diamond Drilling (if target developed)	20,000
Geochem. (say 10,000 samples @ \$5)	50,000
Geochem. (Consultant)	3,000
Chief Exploration Geologist (incl. housing, etc.)	17,000
Samplers, helpers	8,000
Airborne mag. (if equipment in area)	5,000
Field equipment, outside assaying, etc.	20,000
TED and RAM assessment cash payment	2,000
TOTAL	<u>\$ 360,000</u>

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Research Geologist (incl. housing, etc.)	\$ 18,000
Asst. (Ph.D. Candidate(?) incl. housing, etc.)	10,400
Helpers (summer students incl. R & B, etc.)	7,000
Vehicle (say \$10/day)	3,600
Field Equipment	1,000
Laboratory work	3,000
O/B - Bedrock drilling	75,000
TOTAL	<u>\$ 118,000</u>

Total Cost of Program

Anvil	\$ 360,000
PRM	<u>118,000</u>
	<u>\$ 478,000</u>

Source of Funds for Anvil Program

Anvil	\$ 133,600	(max. available)
CMC	135,800	(60% remaining)
Dynasty	90,600	(40% remaining)
	<u>\$ 360,000</u>	

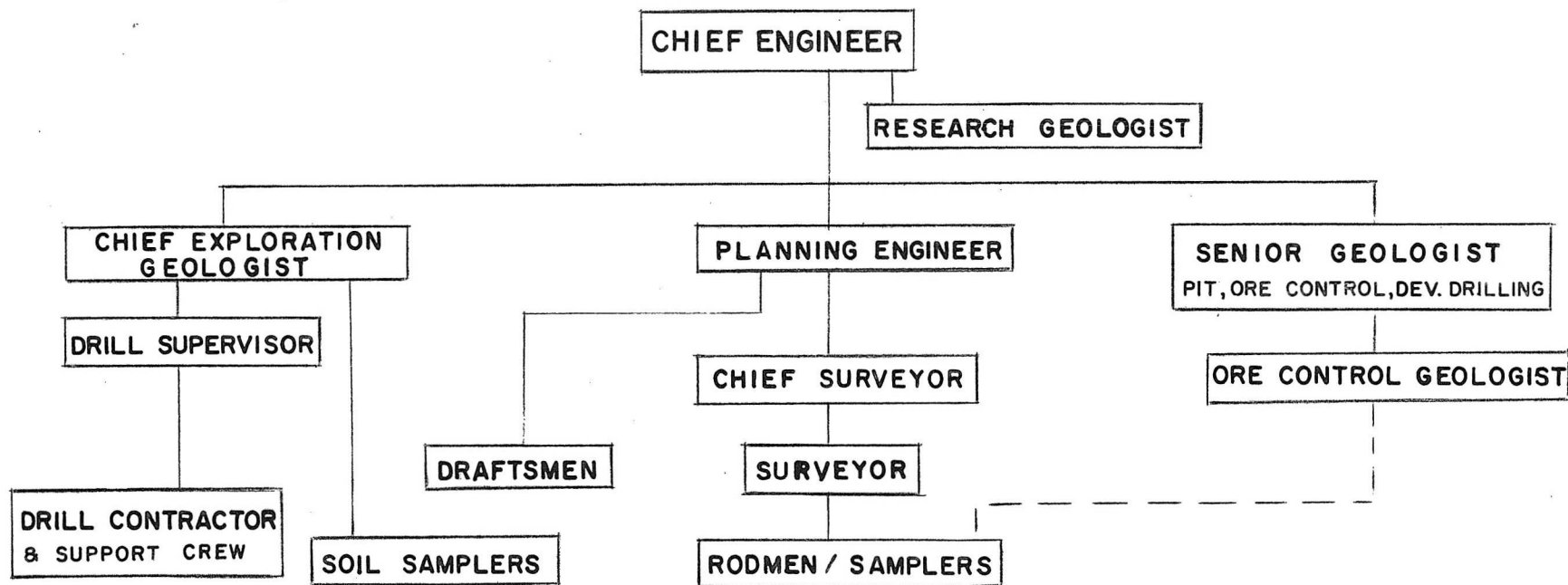
Source of Funds for PRM Program

Anvil (57.1%)	\$ 67,400
Rose Creek - Vangorda (28.6%)	33,800
Dynasty (5.7%)	6,700
CMC (8.6%)	10,100
	<u>\$ 118,000</u>

Summary of Sources of Funds

CMC	Total	\$ 146,900
Dynasty	Total	97,300
Anvil	Total	200,000
RCVG	Total	33,800
		<u>\$ 478,000</u>

ENGINEERING DEPARTMENT 1971

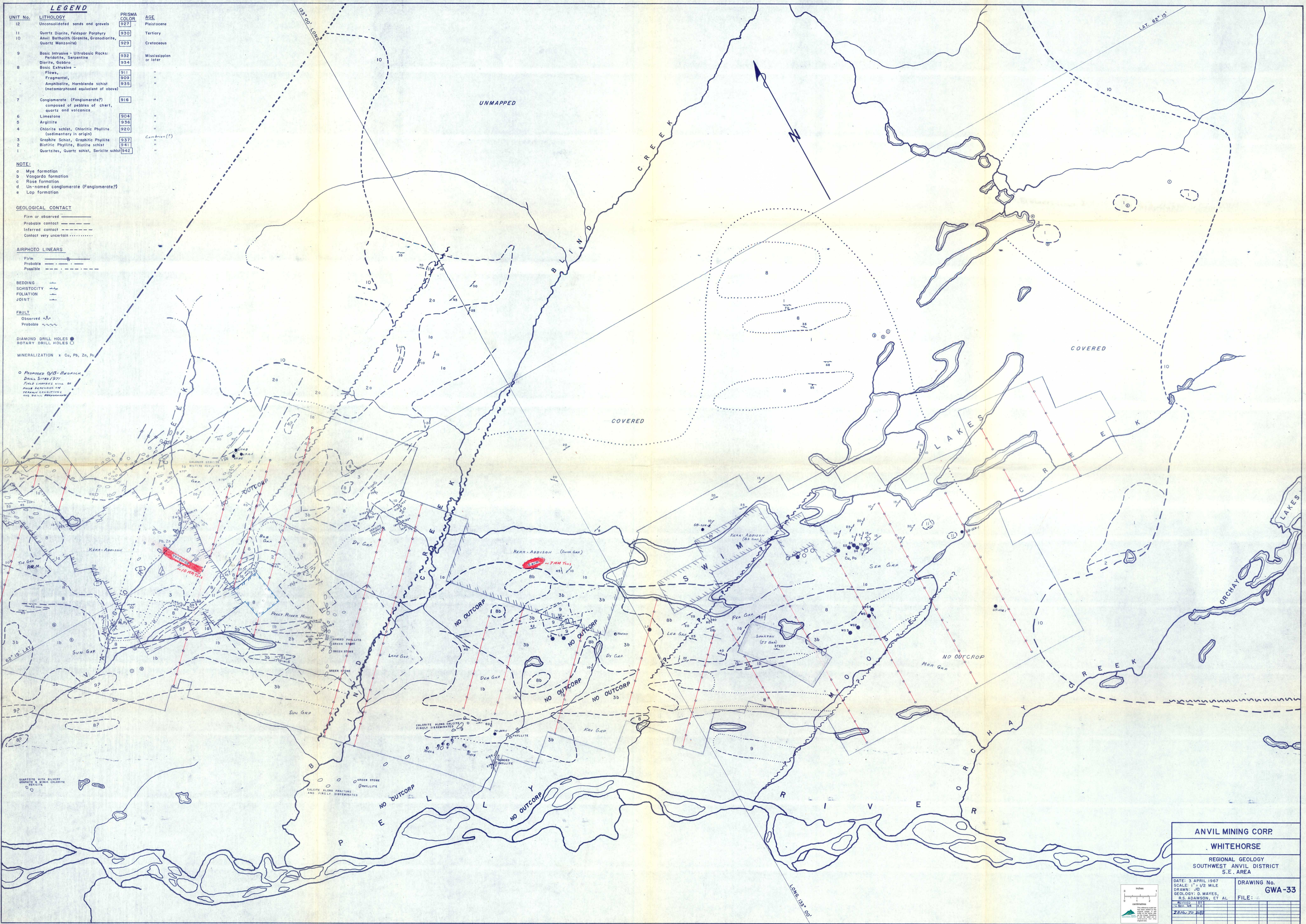


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P. O. BOX 1000

FARO, YUKON TERRITORY

CANADA



LEGEND

UNIT No.	LITHOLOGY	PRISMA COLOR	AGE
12	Unconsolidated sands and gravels	927	Pleistocene
11	Quartz Diorite, Feldspar Porphyry	930	Tertiary
10	Anvil Batholith Granite, Gneissodiorite, Quartz Monzonite	929	Cretaceous
9	Basic Intrusive - Ultrabasic Rocks: Peridotite, Serpentine	932	Mississippian or later
8	Diorite, Gabbro	934	"
	Basic Extrusive - Flows, Fragmental, Amphibolite, Hornblende schist (metamorphosed equivalent of above)	911, 909, 935	"
7	Conglomerate (Fanglomerate?) composed of pebbles of chert, quartz and volcanics	916	"
6	Limestone	904	"
5	Argillite	936	"
4	Chlorite schist, Chloritic Phyllite (sedimentary in origin)	920	Cambrian(?)
3	Graphite Schist, Graphitic Phyllite	937	"
2	Biotitic Phyllite, Biotite schist	941	"
1	Quartzites, Quartz schist, Sericite schist	942	"

NOTE:
 0 Mye formation
 1 Vangorda formation
 2 Rose formation
 3 Un-named conglomerate (Fanglomerate?)
 4 Lap formation

GEOLOGICAL CONTACT
 Firm or observed ————
 Probable contact - - - - -
 Inferred contact - - - - -
 Contact very uncertain - - - - -

AIRPHOTO LINEARS
 Firm ————
 Probable - - - - -
 Possible - - - - -

BEDDING ————
SCHISTOCITY ————
FOLIATION ————
JOINT ————

FAULT
 Observed ————
 Probable - - - - -

DIAMOND DRILL HOLES ●
ROTARY DRILL HOLES ○

MINERALIZATION x Cu, Pb, Zn, Fe
 ○ Proposed O/S-Bearings
 Drill Sites 1971
 Field changes will be made according to terrain conditions and field observations

ANVIL MINING CORP.
WHITEHORSE
 REGIONAL GEOLOGY
 SOUTHWEST ANVIL DISTRICT
 S.E. AREA

DATE: 3 APRIL 1967
 SCALE: 1" = 1/2 MILE
 DRAWN: JG
 GEOLOGY: D. MAYES,
 R.S. ADAMSON, ET AL.
 FILE: 2816-70-33

DRAWING No. **GWA-33**

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