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JANICE JOINT VENTURE

Progress Report 1977

and

Proposed Program 1978

for

Cyprus Anvil Mining Corporation

and

Kerr Addison Mines Ltd.

by:

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A REPORT ON TURAM AND GRAVITY SURVEYS, JANICE GRIDS, FARO AREA, Y.T., by P. E. Walcott, March, 1978.

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North Janice

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PROGRESS REPORT 1977

JANICE JOINT VENTURE

PROGRESS REPORT 1977

SUMMARY

Mapping and re-interpretation of all available data was used to establish a working geological model. The salient geological feature of the Swim Basin is a megascopic, F_1, synform with younger, calcareous phyllite (5B) overlying graphitic phyllite (5A), host to the Grum, Vangorda, DY and Swim deposits, folded into non-calcareous phyllite (3G) containing an older graphitic phyllite (3E).

Geophysical surveys, comprising 24 miles of Turam EM and 55 miles of gravity, were run on a 56-mile newly cut, 800-foot spaced grid, oriented across the strike of graphitic phyllites 5A and 3E. Previous C.E.M. and new Turam EM surveys define the (5A) graphitic phyllite horizon and a lower graphitic phyllite unit (3E - the former Beta conductor) in the underlying non-calcareous, muscovite-chloritic phyllite of unit 3G. Terrain-corrected, gravity surveys define seven modest, 0.3 - 0.6 m.gal. residual anomalies in association with, or unrelated to, electrical conductors.

Two drill targets were selected for testing in early 1978, on the basis of Turam and gravity coincidence on map unit 3E.

Exploration expenditures on the Janice Joint Venture totalled approximately $86,500 in 1977.

INTRODUCTION

The JANICE 1 - 142 claims (Figure 1) form part of a 2,500 claim block contiguous with the Faro mining lease area in a relatively

unexplored area of favourable ground east of Swim Lake, between Moose Creek and Blind Creek. The area is poorly exposed, has difficult summer access, and had relatively scant geophysical coverage. Increased knowledge of the structure and stratigraphy of the Faro-Swim Lake area and a re-assessment of all available geological, geophysical and borehole data east of Swim Lake has resulted in a meaningful exploration compilation (Figure 2). This indicates two graphitic phyllite horizons, 5A and 3E, underlie the Janice claims. Unit 5A hosts seven known sulfide deposits in the district. Access to the claims is by winter road from Swim Lake from December through April, or helicopter from either Faro, Ross River, or the DY drill camp.

PREVIOUS WORK

In the early sixties, the area east of Swim Lake was subject to a first pass exploration en route to the Faro discovery, and obvious airborne EM/magnetic targets were tested by rotary drilling and minor diamond drilling. Graphitic horizons were encountered both in outcrop and boreholes. The discovery of Faro resulted in massive land acquisition by Anvil and others, but subsequent work was largely centered in the belt between Faro and Vangorda, with only sporadic grid geophysical coverage in the Swim Lake area. This coverage was aimed at obvious Lockwood airborne anomalies or uncorrected, residual gravity anomalies and was done largely to satisfy assessment requirements, thereby maintaining the land package.

With the successful development of Faro and later the discovery of Grum and DY, more attention has been diverted to phyllites of Vangorda and Mt. Mye Formations (units 5 and 3). Over the

last two years, deep E.M. coverage (Turam) and refined gravity surveys have been extended east of Swim Lake, and a number of conductor zones, related to units 5A and 3E, have been successfully traced through overburden covered areas, completing the preliminary geologic mapping of much of the Swim Lake structural basin. Units 5A and 3E can be traced, now, with reasonable confidence through the basin into the Janice area (Figure 2).

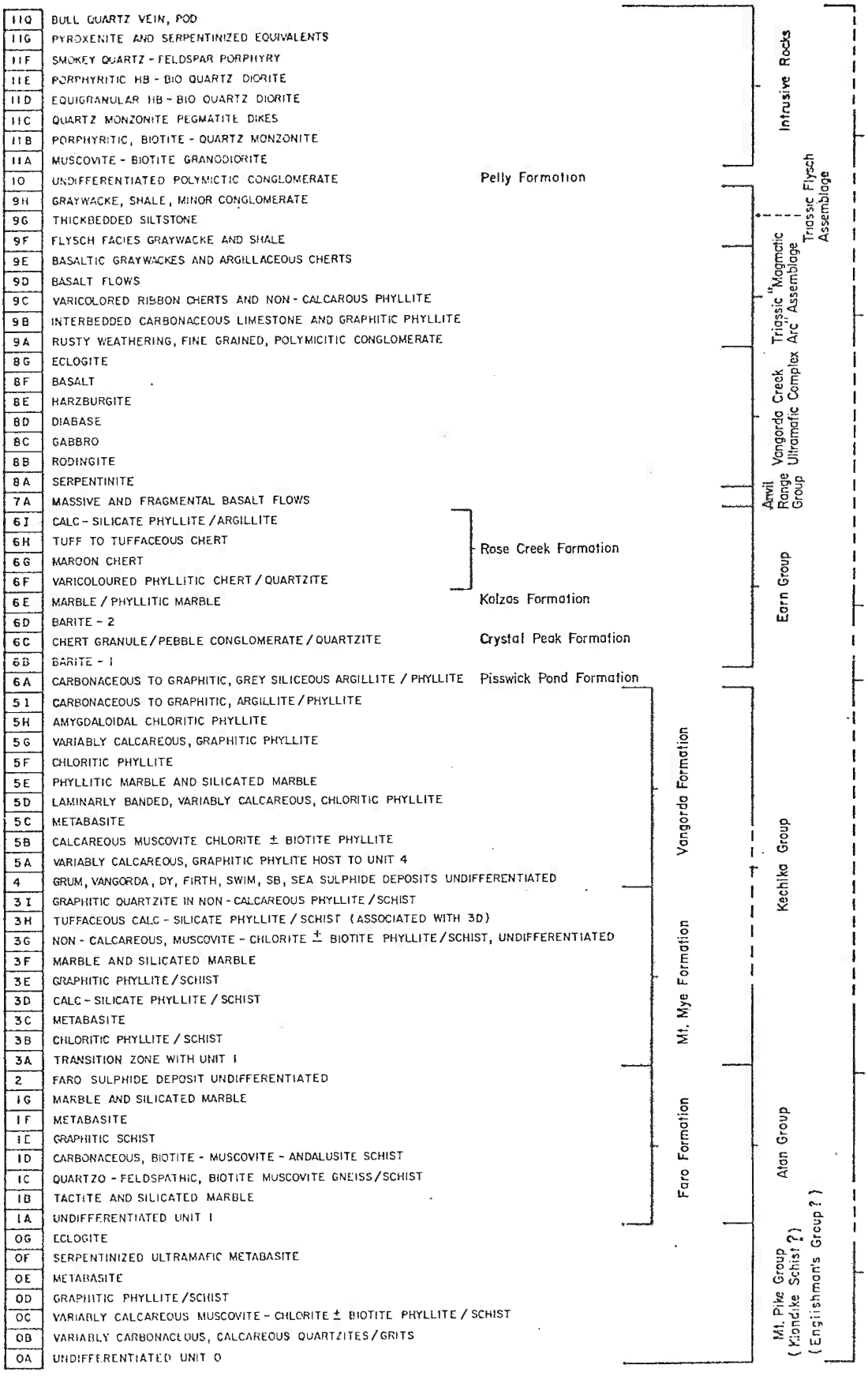
WORK PROGRAM 1977

A 56-mile chain-saw, cut-line grid was established to cover the extent and extrapolation of the old Beta and Delta EM anomalies located by Dynasty Exploration Ltd. The present geological base (Figure 2), which resulted from re-mapping and re-logging of known boreholes, indicates the Beta horizon (3E) is stratigraphically lower than the Delta horizon which corresponds to the Vangorda graphitic phyllite horizon (5A). Turam was run on a 25-mile north-south oriented, 800-foot spaced grid over the Beta (3E) horizon with extensions to envelope the old east-west Delta C.E.M. grid, which was re-cut at 800-foot spacing to facilitate an overall 55 line mile gravity profile survey. All gravity data was tied in to existing district gravity control stations, and a computer programmed terrain correction applied to the results.

GEOLOGY

Recent work in the Anvil belt has established a workable stratigraphic sequence for the polymetamorphic/polydeformational volcano-sedimentary pile as follows:

ANVIL RANGE LITHOSTRATIGRAPHIC CODE



The salient geological feature of the Janice claims is a northwest-southeast elongated, basinal outcrop pattern of 5B calcareous phyllite cored by metabasite flows (Figure 2). The structure results from cross folding of a north-easterly trending megascopic, F_1, synformal axis, cut by a more easterly trending F_4(?) warp. The 5B calcareous phyllite is underlain by a persistent graphitic phyllite horizon (5A) traced by C.E.M. and Turam conductors and verified by several borehole intersections. This is, in turn, underlain by an apparently great thickness of poorly exposed, non-calcareous, muscovite-chloritic phyllite (3G), in which a second, and older, graphitic phyllite horizon (3E) is traced by Turam conductors, and previous drilling on the former Beta claims. Unit 5A is host to the SWIM, DY, GRUM and VANGORDA deposits and, as such, is considered to be a prime exploration target. Except for intersections in rotary holes BRH 1-3 put down in 1965 to test airborne, C.E.M. conductors and sporadic magnetic highs, little is known about the Beta (3E) graphitic zone, of which there is a considerable strike extent on the JANICE claims. By comparison to unit 5A, unit 3E would be classed as a less attractive target, due mainly to the fact that no sulfide deposits have been discovered in or near it owing to lack of exploration coverage. In terms of depositional environment, unit 3E is identical to 5A.

GEOPHYSICS

Results, specifications and methods employed in the 1977 Turam and gravity surveys on the Janice grids are detailed in a report by Walcott (1978) included as Appendix I. This report will not be reviewed in detail, except to point out the association of

terrain-corrected and uncorrected residual gravity anomalies in anomaly "M" (Walcott, 1978). This association should provide a drill test case to evaluate whether the terrain-corrected residuals are "real" or "manufactured" and whether continued corrections on the currently available topographic base are warranted. Turam and residual gravity compilations are included (Figures 3 and 4) to show all exploration data at a common scale.

COST SUMMARY

A summary of 1977 expenditures totalling approximately $86,500 on the Janice Joint Venture is given in Appendix II.

CLAIM STATUS SUMMARY

A current claim status listing is included as Appendix III of this report. Inspection of this listing shows all Janice Mineral Claims to be in good standing until at least 30 April, 1981.

CONCLUSIONS

A megascopic, F_1 synform is the dominant structural feature of the Janice Joint Venture area. Units 5A and 3E can be traced by ground EM surveys around the keel of this fold. The overall topology of the F_1 fold has been modified by an F_4(?) cross-fold and doming associated with intrusion of Anvil and Orchay Batholiths.

A complex, terrain-corrected, residual gravity anomaly associated with moderate to strong Turam anomalies was defined on the northern part of the Janice grid (anomaly "M", Walcott (1978)). This coincident set of anomalies directly associated with graphitic phyllites of unit 3E constitutes the best exploration target on

the Janice claim block defined to date (c.f. unit 5A on Vangorda plateau). The association of terrain-corrected and uncorrected residual gravity anomalies over the 3E conductor provides a unique opportunity to critically evaluate the worth of the terrain correction procedure on the currently available topographic base. No further targets of immediate interest were found on the property.

PROPOSED PROGRAM 1978

JANICE JOINT VENTURE

PROPOSED PROGRAM 1978

INTRODUCTION

Geophysical surveys completed in 1977/78 defined a coincident, complex, terrain-corrected residual gravity and Turam anomaly associated with graphitic phyllites of map unit 3E on the Janice claims. An evaluative program for 1978 covering these coincident anomalies is detailed below.

PROPOSED 1978 PROGRAM

Detailed scrutiny of residual gravity anomaly "M" (Walcott, 1978) suggests a mass excess, possibly sulfide-related, associated with 3E. The anomaly is best developed on lines 32E to 40E on the North Janice grid. Inspection of the profiles (Walcott, 1978, figures W-231-3 and 4) shows the "manufacture" of a terrain-corrected residual anomaly between the original uncorrected residuals by the correction program. As Walcott (1978, p. 9) points out, there is a certain degree of uncertainty as to the significance of the terrain-corrected anomaly.

Accordingly, a drilling program to simultaneously evaluate the corrected and uncorrected anomalies was developed jointly by Walcott and the writers as follows:

Location	Length	Inclin. and Direct'n	Target
L32E, 21+00S	600'	-60°N	Coincident, corrected and uncorrected residual gravity anomalies associated with unit 3E.
L32E, 14+80S	600'	-70°N	Coincident, uncorrected residual gravity and Turam anomalies associated with unit 3E.

It is felt this program will:

(a) adequately test unit 3E for excess mass concentrations related to sulfides, and

(b) provide an orientation study to evaluate the worth of the terrain-corrected gravity approach using the existing topographic data base.

TIMING AND BUDGET

It is anticipated drilling will begin on Janice in May or June, depending on break-up conditions. Arctic Diamond Drilling will be the drilling contractor using a Longyear Model 38 diamond drill with helicopter support provided by 206B Jet Ranger on contract from Trans North Turbo Air. The DY drill camp will serve as operational base.

An inclusive Swim Basin budget proposal is included as Appendix IV. The Janice expenditures will be approximately one-third of the total, which will be split evenly between the joint venture partners.

ASSESSMENT

Application of assessment monies from the drilling program should carry the Janice claims in good standing to their anniversary dates in 1983.

CONCLUSIONS

Two drill holes are proposed for the Janice Joint Venture in 1978. These holes are designed to test gravity anomalies associated with graphitic phyllites (3E) following the precedent of sulfide deposit-related gravity responses up-stratigraphic

section in unit 5A graphitic phyllites.

Respectfully submitted,

J. G. Simpson, Ph.D., P.Eng.

D. S. Jennings, Ph.D.

References

Walcott, P. E. (1978) A Report on Turam and Gravity Surveys: Janice Grids, Faro Area, Y.T.: Cyprus Anvil Mining Corporation Rpt., 12 p.

CYPRUS ANVIL MINING CORPORATION

CLAIM SURVEYS

SHOWING PROPOSED DDH 1978

APR. 1978

SCALE IN FEET

FIGURE 1

CYPRUS ANVIL MINING CORPORATION

CLAIM SURVEYS

DECEMBER 1978

SCALE IN FEET

PELLY RIVER

ORCHAY RIVER

SWIM LAKE

FRNGER LAKE

ECHO LAKE

MOOSE LAKE

CHB LAKE

BLIND CREEK

7BX-15 -90°,1500'

7BX-13 -70°N,600'

7BX-12 -60°N,600'

7BX-14 -90°,1800'

LAKES

FIGURE 2

CYPRUS ANVIL MINING CORPORATION

GEOLOGICAL MAP

REVISED BY: R.D.H. MAR 31, 1977; PER IN 1978

APR 1978

SCALE IN FEET

N.T.S. 104 K

COMPILED BY R.D.H. - N.D. DATE APRIL 4, 1977

DRAWN BY N.D.

DATE APRIL 4, 1977

YUKON GEOLOGICAL SURVEY

This reference scale bar has been added to the original drawing by the YGS. Note: as the image, therefore it may not be accurate for the original size.

ANVIL MINE
1 SEA N HANGOVER
2 SWIM LAKES

Scale 1" = 10 miles

ALL WEATHER ROADS
SECONDARY ROADS
TOTE TRAILS
BRIDGES
PRIMARY STREAMS
SECONDARY STREAMS
SWAMPS
CAMP LOCATIONS
DIAMOND D.H. SITES
ROTARY DRILL SITES
TRIANGULATION STATIONS
SPOT ELEVATION IN FEET

BLIND CREEK
SWIM LAKE
CUB LAKE
ECHO LAKE
MOOSE LAKE
FINGER LAKE
ORCHAY LAKES
ORCHAY RIVER
PELLY RIVER
VANGORDA CREEK FAULT
78X-13 -70°N, 600'
78X-12 -60°N, 600'
78X-14 -90°, 1800'
78X-15 90°, 1500'

BUD - FOTO SURVEY NOT AT STANDARD SCALE.

78X-13 -70°N, 800'

78X-12 -60°N, 600'

78X-14 -90°, 1800'

78X-15 -90°, 1500'

132° 50' 00"
22,690,000'N
62° 20' 00"
390,000'E
132° 40' 00"
400,000'E
410,000'E
132° 35' 00"
22,670,000' N
420,000'E
132° 30' 00"
22,660,000'N
132° 50' 00"
22,700,000'N
370,000'E
380,000'E
132° 45

78X-13 -70° N, 600'

78X-12 -80° N, 800'

78X-14 -90°, 1800'

78X-15 -90°, 1500'

CYPRUS ANVIL MINING CORPORATION

RESIDUAL GRAVITY COMPILATION

REVISED BY

NTS 105K-2
Drawn By C. L. C.
DATE JAN. 15, 1979
VALUES: 0.1 Mgal

inches
centimeters

This reference scale bar has been added to the original figure. The scale at the same size as the image, therefore it may be used to determine the scale of the original size.

YUKON GEOLOGICAL SURVEY

FIGURE 4

CYPRUS ANVIL MINING CORPORATION

RESIDUAL GRAVITY COMPILATION

REVISED BY
E.K.B. MAR 16, 1979
APR. 1978

SCALE IN FEET

NTS 105K/2
Drawn By C. L. C.
DATE MAR 15, 1979
VALUES 0.1 Mgal

ANVIL RANGE LITHOSTRATIGRAPHIC CODE