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WHITE MESA COPPER DEPOSIT

NAVAJO INDIAN RESERVATION  
COCONINO COUNTY, ARIZONA

FOR

ESSEX INTERNATIONAL, INC.



WHITE MESA COPPER DEPOSIT

T.37 N. R.9 E.

T.38 N. R.9 E.

NAVAJO INDIAN RESERVATION

COCONINO COUNTY, ARIZONA

April 8, 1970

FOR

ESSEX INTERNATIONAL INC.

BY

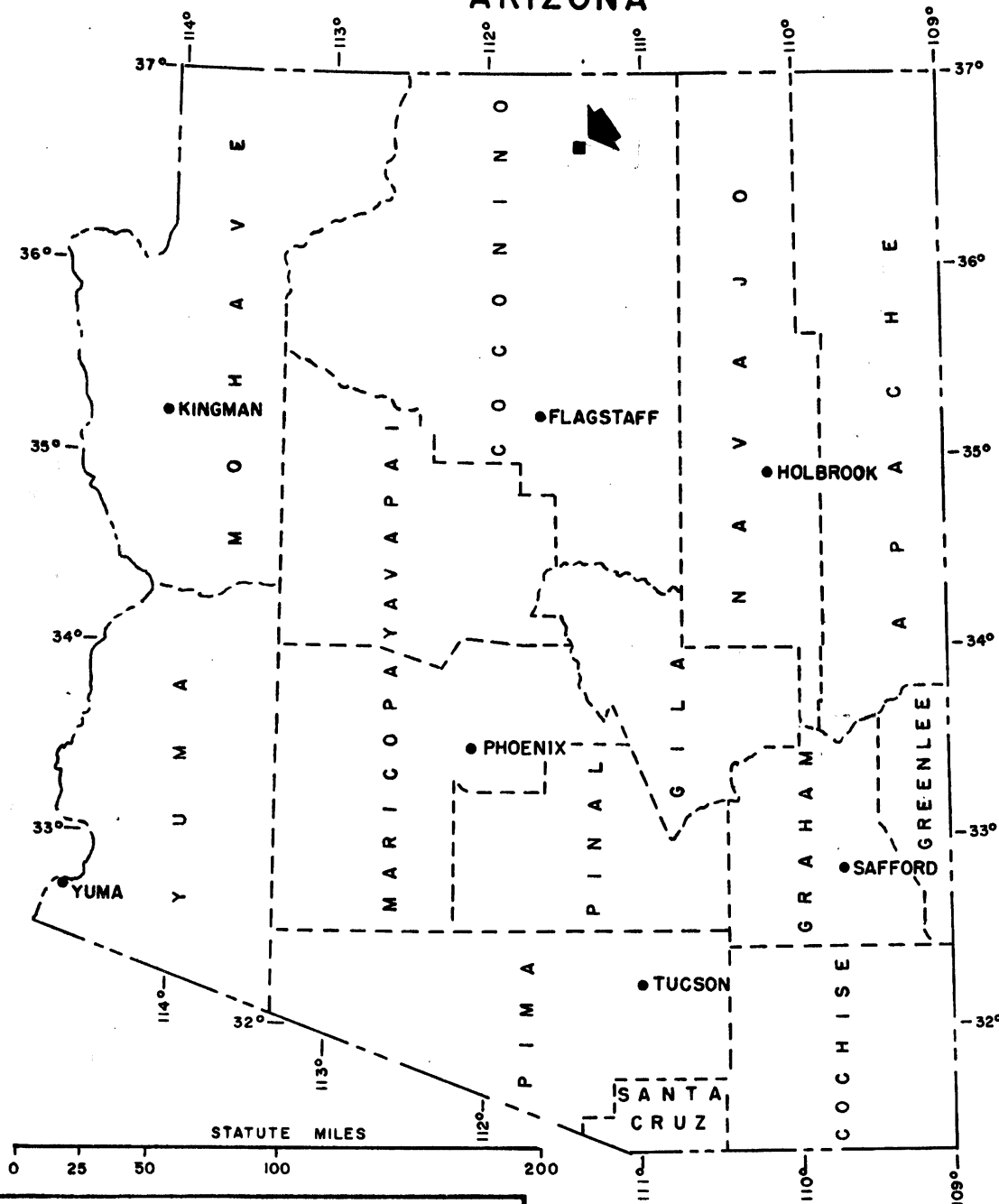
HEINRICHS GEOEXPLORATION COMPANY

P.O. Box 5964 - Tucson, Arizona

Telephone 1-602-623-0578

# GENERAL LOCATION OF WHITE MESA COPPER OXIDE DEPOSIT

## ARIZONA



**HEINRICHS  
GEOEXPLORATION COMPANY**

<b>AUSTRALIA</b> (SYDNEY) 39 Hume Street Crows Nest, NSW Phone: 439-1793	<b>U.S.A.</b> Post Office Box 5671 Tucson, Arizona 85703 Phone: (602) 623-0578 Cable: GEOEX, Tucson
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**GEOPHYSICAL  
ENGINEERS**



## TABLE OF CONTENTS

	Page
Index Map	
Introduction-----	1
Conclusions and Recommendations-----	2
Property, Title, Legal and Land Information-----	4
Geology and Mineralogy-----	6
Signature Page-----	7

Addendum: Affidavit of performance of annual work. In pocket.

Map 1. Portion of Arizona Bureau Mines Geology of  
Coconino County. Scale 1": 375,000

Map 2. Mineral and Land Status  
From U.S. Department of Interior, Bureau of Land  
Management showing patented and unpatented claims  
Scale 1" = 2000'

Map 3. Army Map Service 1 : 250,000 scale  
Marble Canyon Quad. U.S.G.S.



## INTRODUCTION

At the request of Mr. Howard Lanier and Mr. Jerome Willis of Essex International, Heinrichs GEOEXploration Company conducted a preliminary investigation to determine the availability and the possible future economic potential of the White Mesa Copper Company. The site was briefly visited by E. Grover Heinrichs on 25-26 February 1970, but no attempt was made to do any geological work other than an office correlation of published data.

A search was made of the U.S. Bureau of Land Management and Coconino Court House records and the findings are a part of this report.



## CONCLUSIONS AND RECOMMENDATIONS

The property appears to have a significant though small economic mineral potential if proper technical management and financing is utilized.

This statement would have to be substantiated by further geological and geophysical investigations in conjunction with a drilling program. However, it has been reported that there are two million tons of copper-bearing material at White Mesa with a probable grade of 0.75% copper, or 30,000,000 # of copper.

Past operational activities reportedly were hindered by inexperienced operators, possible fraud, poor financing, serious water problems and legal land entanglements with the Navajo Reservation and others.

It is recommended, if the legal and land status problems can reasonably and quickly be resolved, that an engineering program be undertaken to determine possible grade, tonnage and character of available copper reserves in the deposit or deposits involved.

The exploration and evaluation program should be divided into two phases. Phase one would evaluate the exposed known area, where most of the workings are, in the immediate vicinity of the trading post, at an estimated cost of



approximately \$ 20,000. If justified by phase one results, a second phase would undertake to preliminarily check out the potential of approximately an eleven square mile area located easterly of the Trading Post at an initial estimated cost of about \$ 30,000.

Comprehensive geological mapping, coupled with limited airborne magnetics, geochemical, ground geophysical, drilling and sampling work designed to cover selected-representative portions of the eleven square miles would total about \$ 50,000 for phase 1 and 2 combined. Results of this initial work should tell if a development feasibility program were warranted.



PROPERTY, TITLE, LEGAL AND LAND INFORMATION

Investigation and discussions with Bob Patterson (son of Coit Patterson, owner of Copper Mine Trading Post) and personnel in the offices of Coconino County Assessor, Recorder and Treasurer reveal the following:

1. Coit Patterson reportedly has a \$ 25,000 suit against Don J. Ames, President of Zontelli Western Mining Company for bad checks and purchased items not paid for.
2. County Treasurer has unpaid property taxes past due against Zontelli Western Mining Company amounting to approximately \$ 7000.00.
3. Numerous other suits alluded to against Zontelli Western Mining Company.
4. Utility payments unpaid.
5. Assessment work on 28 unpatented mining claims up to date. Records indicate other unpatented claims filed by one L. Vaitch of Spokane, Wash.
6. Land possibly available for exploration and lease from the Navajo Indian Reservation surrounds the patented and unpatented mining claims, total area to explore consists of 11 sections (about 7000 acres).



7. Patented Mining Claims accounting for 185.609 acres including mineral surveys numbered 2757, 2758, 2759, 2760, 2761, 2762, 2763 are currently held in trust by the Chase Manhattan Bank, Lemuel C. Shattuck Trustee.
8. To clear title may cost in the neighbourhood of \$ 100,000.00.



## GEOLOGY AND MINERALOGY

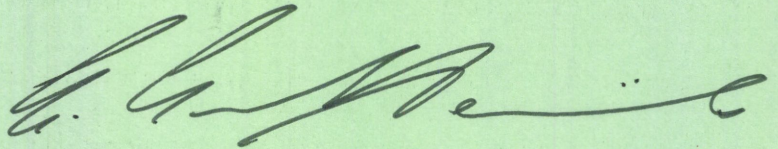
The White Mesa deposit is of Jurassic-Triassic age and the mineralization is malachite and copper silicate with some black copper oxide present forming halos around disseminated chalcocite and bornite in a matrix of Navajo Sandstone. No chalcocite or bornite was observed in this visit but they have been reported in various Arizona State publications.

The better mineralization occurs along shearing and fracture intersections. Little information is available on the depth of old mineralization other than some non systematic drilling that reported copper occurrences at 80' deep.

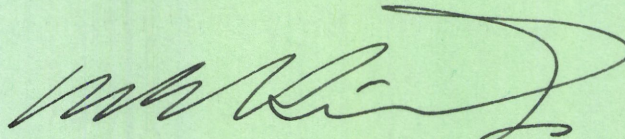


Respectfully Submitted:

HEINRICHS GEOEXPLORATION COMPANY (INC.)

A handwritten signature in dark ink, appearing to read 'E. Grover Heinrichs', written in a cursive style.

E. Grover Heinrichs  
Vice President

A handwritten signature in dark ink, appearing to read 'Walter E. Heinrichs, Jr.', written in a cursive style.

Walter E. Heinrichs, Jr.  
President



# AFFIDAVIT OF PERFORMANCE OF ANNUAL WORK

STATE OF ARIZONA       )  
                                  ) ss.  
COUNTY OF COCONINO    )

JACK A. TAITCH, being duly sworn, deposes and says that he is a citizen of the United States and more than twenty-one (21) years of age, resides at Spokane, in Spokane County, Washington, is personally acquainted with the mining claims situated in the White Mesa Mining District, Coconino County, Arizona, described as follows, to-wit:

<u>NAME OF CLAIM</u>	<u>BOOK OF MINES</u>	<u>PAGE</u>
Inspiration	7	513
Camp	7	506
Clark	7	505
Eastern Star	7	511
Buster	7	503
Naab	13	13
Dutchman	7	509
Ray	7	519
Tanner	13	12
Starlight	13	2
Sunset	13	15
Queen	13	10
King	13	6
Maine	13	17
Moon	13	18
State	13	21
Harvey	13	7
Hilltop	13	16
Lucky	13	14
Princess	13	3
Copper King	13	1
National	13	4
Thrift	13	19
Chico	13	8
Duke	13	11
Boxo	13	5
Arizona	13	20
Prosperity	13	9

That between the 1st day of September, 1968, and the 1st day of September, 1969, at least \$2,800.00 worth of work and improvements were done and performed upon said claims, not including the location work of said claims. Such work and improvements were made by and at the expense of affiant, owner of said claims, for the purpose of complying with the laws of the United States pertaining to assessment or annual work, and

6663

RECORDED AT REQUEST OF Jack A. Taitch  
August 28 A. D. 1969 at 1:00 o'clock P. M.  
 in Book 339 Page 226-227  
 of Coconino County, Arizona.  
Edna Mae Thornton County Recorder  
 By H. P. [Signature] Deputy



Isaac Bigman, Koe Howard, Tom Howard, Ed Kent, Robert Lane, John Lane, John Kling, Frank Clizale, Lee Spencer, John Scott, Max Johnson, Harry Begay, Kensley Iron, Floyd Stevens, Tully Bitale, Russell Cordery, Claude Thompson; geologist, William R. Green, of Moscow, Idaho, and Koejan Construction Company, of Page, Arizona, were the men employed by said owner and who labored upon said claim, did said work and improvements, the same being as follows, to-wit:

Road construction, making bulldozer exploration cuts and manually digging prospect holes, and making a complete geological evaluation and geological supervision of the claims based on such cuts and prospect holes, and other pertinent data, verified report of which is under preparation for filing.

Jack A. Taitch  
Jack A. Taitch

SUBSCRIBED AND SWORN to before me this 22nd day of  
August, 1969

William R. Green  
Notary Public

My Commission Expires:

July 6, 1970