CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 08/16/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: SULFA GROUP

ALTERNATE NAMES:
SAPPHIRE 1-8

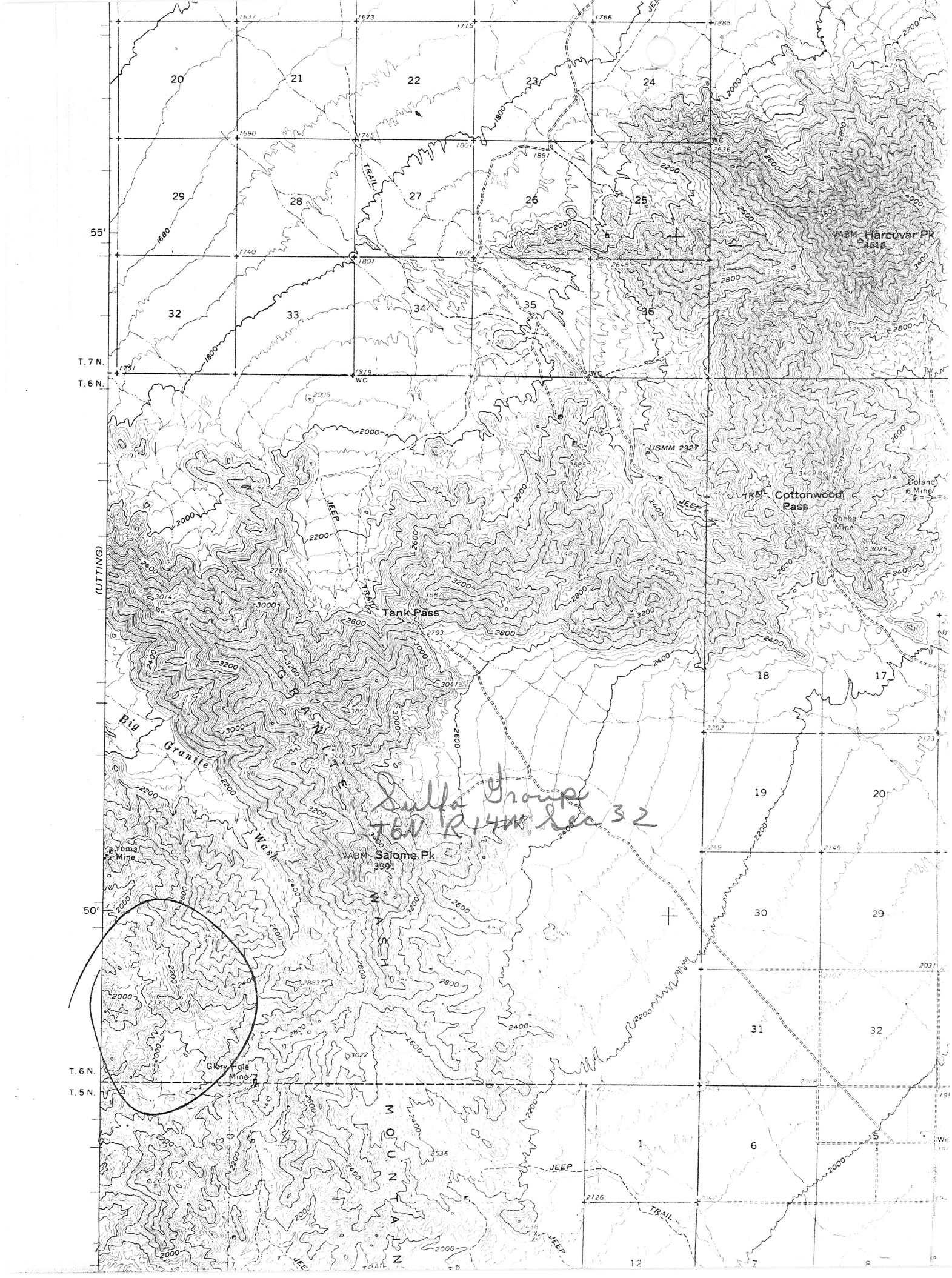
LA PAZ COUNTY MILS NUMBER: 803

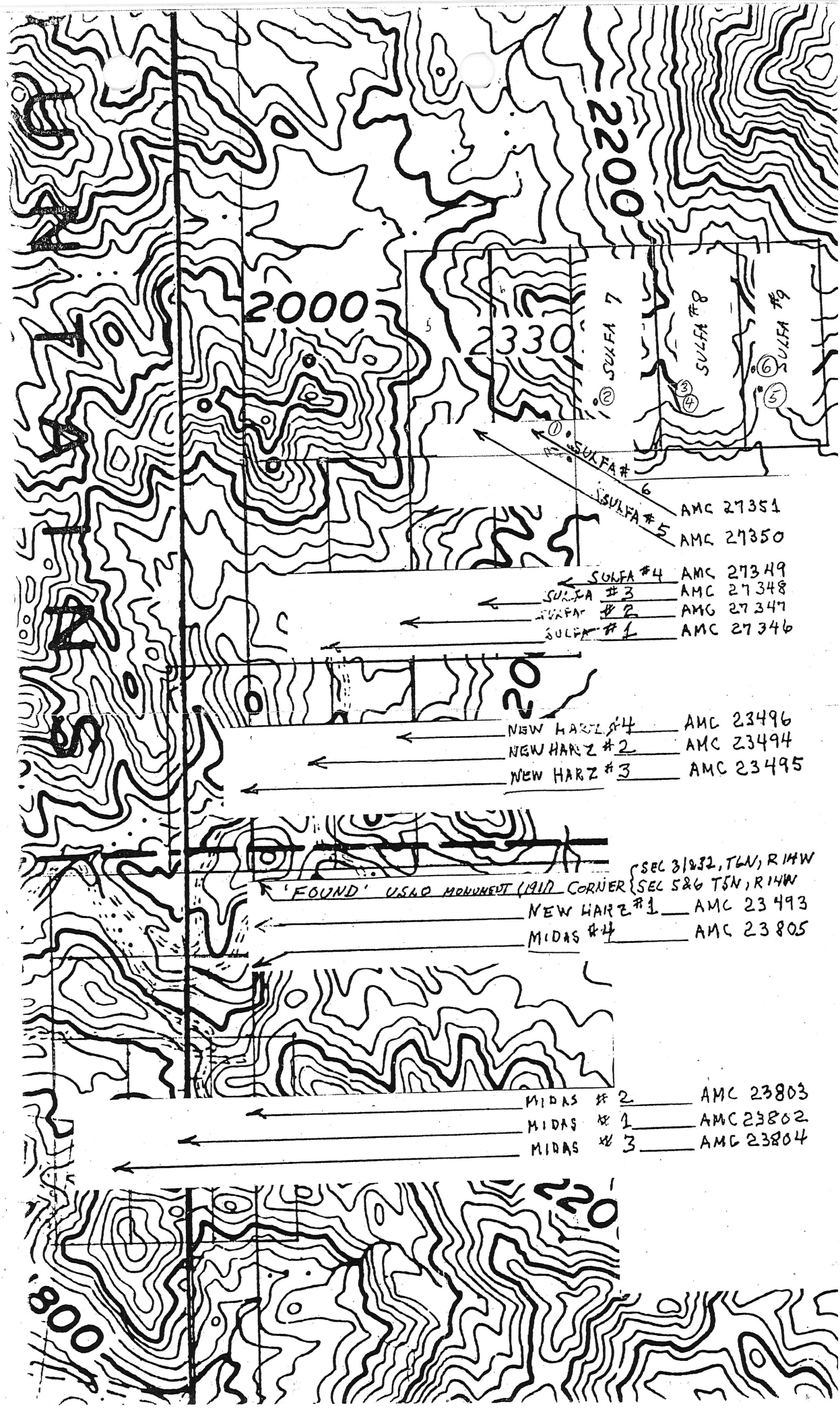
LOCATION: TOWNSHIP 6 N RANGE 14 W SECTION 32 QUARTER N2
LATITUDE: N 33DEG 49MIN 20SEC LONGITUDE: W 113DEG 44MIN 23SEC
TOPO MAP NAME: SALOME - 15 MIN

CURRENT STATUS: RAW PROSPECT

COMMODITY:
KYANITE
KYANITE SILLIMANITE
KYANITE ANDALUSITE

BIBLIOGRAPHY:
ADMMR SULFA GROUP FILE


Harcuvar Pk
4618
Cottonwood Pass
Boland Mine
Sheba Mine
Tank Pass
Big Granite Wash
GRANITE WASH MOUNTAINS
Yuma Mine
Salome Pk
3991
Glory Hole Mine
Sulfa Group
T6N R14W Sec 32
T. 7 N.
T. 6 N.
T. 6 N.
T. 5 N.
55'
50'
(UTTING)
TRAIL
JEEP
USMM 2927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SULFA #8
SULFA #9
SULFA #6
SULFA #5
AMC 27351
AMC 27350
SULFA #4 AMC 27349
SULFA #3 AMC 27348
SULFA #2 AMC 27347
SULFA #1 AMC 27346
NEW HARZ #4 AMC 23496
NEW HARZ #2 AMC 23494
NEW HARZ #3 AMC 23495
'FOUND' USLO MONUMENT (1910 CORNER {SEC 31&32, T6N, R14W / SEC 5&6 T5N, R14W
NEW HARZ #1 AMC 23493
MIDAS #4 AMC 23805
MIDAS #2 AMC 23803
MIDAS #1 AMC 23802
MIDAS #3 AMC 23804
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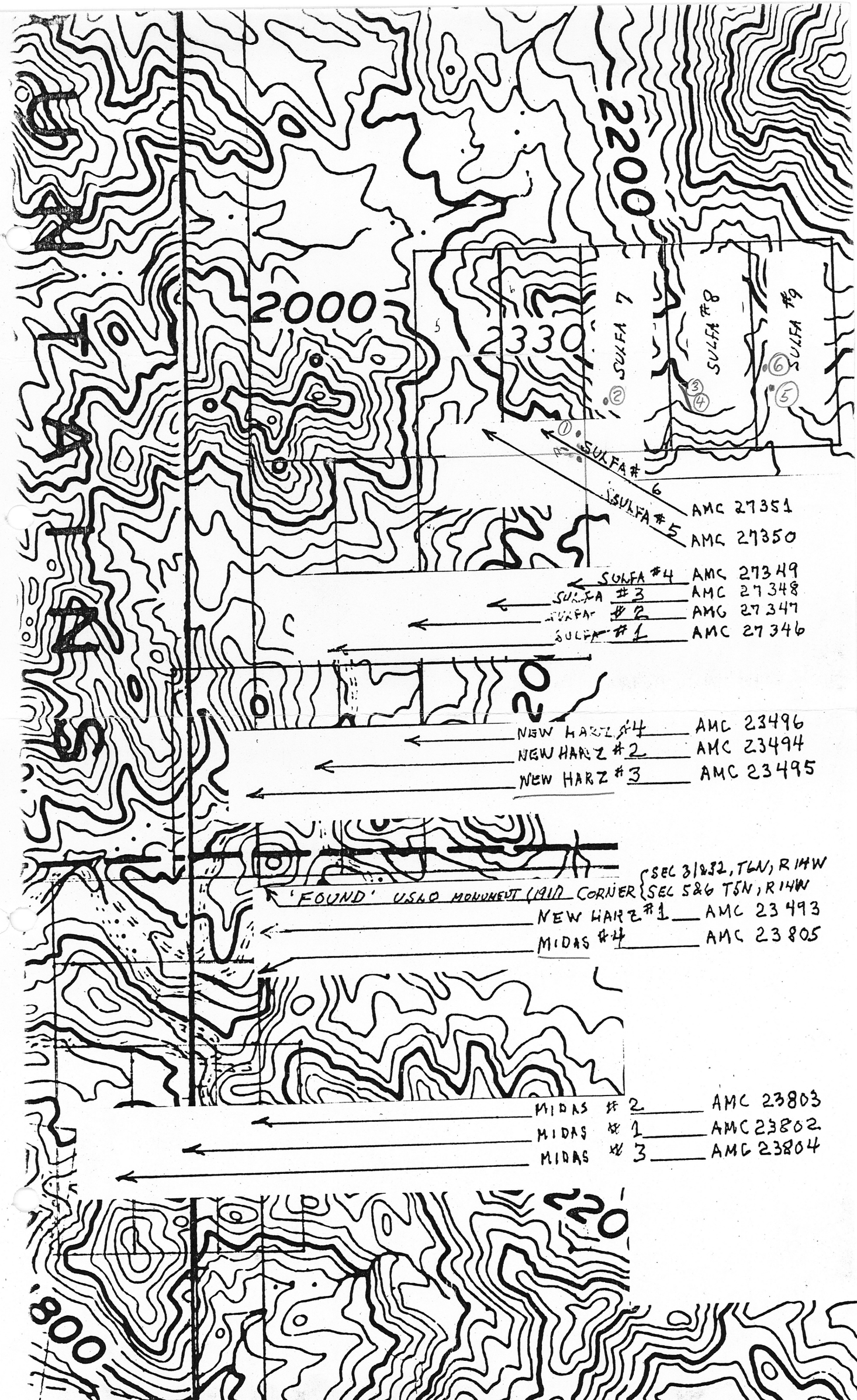
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2000
2330
SULFA 7
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SULFA #9
SULFA #6
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AMC 27351
AMC 27350
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SULFA #3 AMC 27348
SULFA #2 AMC 27347
SULFA #1 AMC 27346
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NEW HARZ #2 AMC 23494
NEW HARZ #3 AMC 23495
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MIDAS #1 AMC 23802
MIDAS #3 AMC 23804
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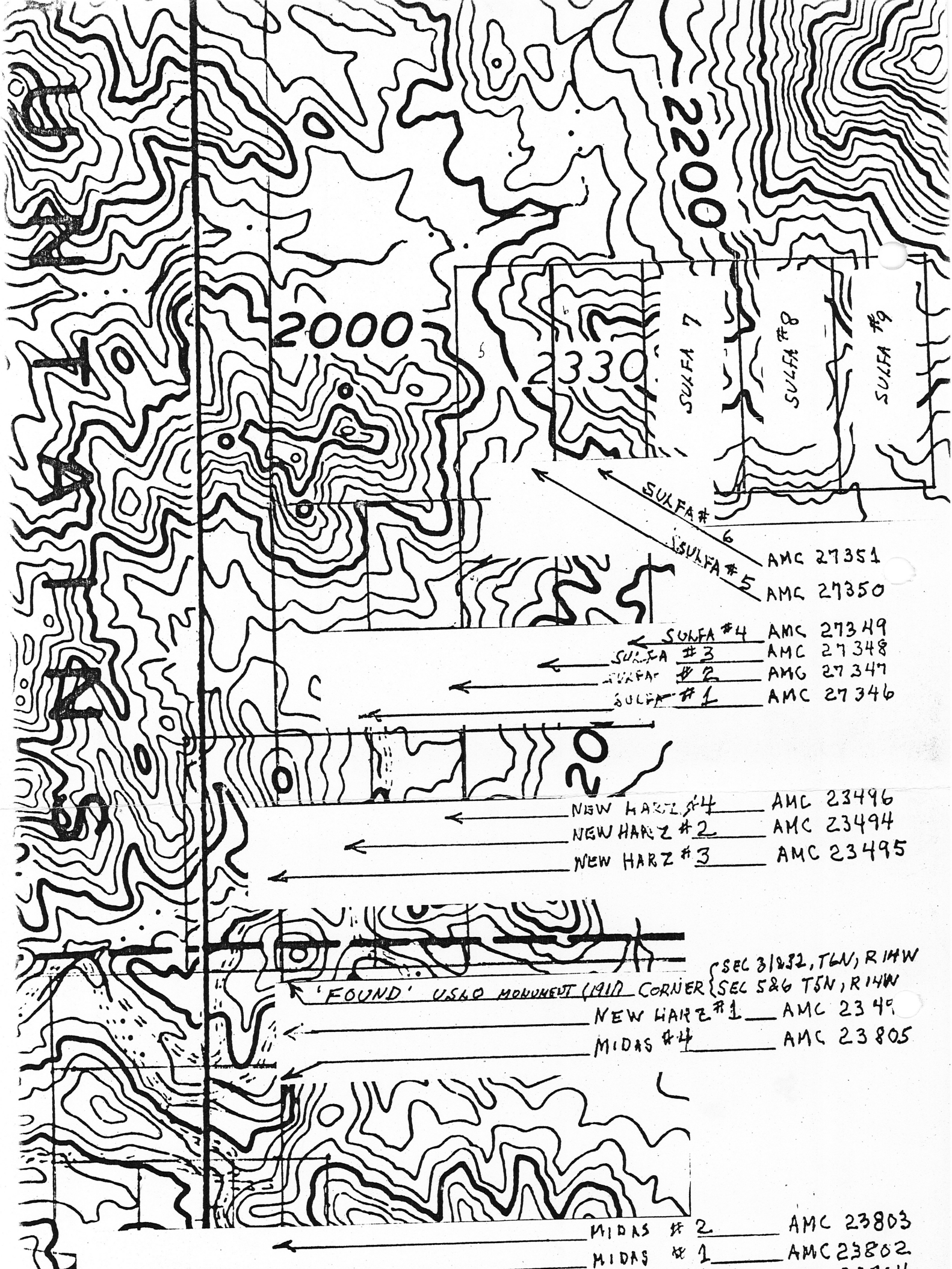
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SULFA #4 AMC 27349
SULFA #3 AMC 27348
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NEW HARZ #1 AMC 2349
MIDAS #4 AMC 23805
MIDAS #2 AMC 23803
MIDAS #1 AMC 23802

OFFICE PHONE
714/234-1851

RES. PH 278-2192
TWX. 335-1219

P.O. BOX 12040
SAN DIEGO, CALIFORNIA 92112-3040

SHEPARD K. NASH, JR.
AREA MANAGER

CRESCENT WHARF & WAREHOUSE CO.
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Cominco American Incorporated/No. 1 Westbury Square
St. Charles, Missouri 63301/Office (314) 723-5418

Cominco American

WILLIAM L. MANSKER, PH.D.
Geologist

(209) 274-2471

WESTERN DIVISION
P.O. BOX 785
IONE, CA 95640

NARCO

JOHN Y. COLE, JR.
MANAGER OF MINES

North American Refractories Co.
An ALLIED Company

Nissho-Iwai
American
Corporation

Broadway Plaza
Suite 1900
700 South Flower Street
Los Angeles, California 90017

Telex
WU 67-4120
TWX 910-321-5765

AKINORI UEDA
Assistant Manager
General Commodity Dept

(213) 688-0681

INDUSTRIAL MINERALS INC.

1000 FIRST AVENUE, SUITE 206, BUILDING NO. 1 • KING OF PRUSSIA, PA 19406
215-337-8470
TWX: 510 660 2080

April 20, 1982

Strategic Resources, Inc.
315 Standord S. E.,
Albuquerque, New Mexico 87106

Attention: Mr. Charles E. Willmore, President

Dear Mr. Willmore:

Thank you for your letter of April 1st to Mr. C. H. Gehret who no longer is with this company. I read with interest your comments in your letter. I would like to possibly discuss the kyanite with you after I return from Europe which will be some time in early June.

Again, thank you for writing to us.

Kind regards,

INDUSTRIAL MINERALS, INC.

IB Weedon

Ian B. Weedon
President

IBW:amm

Cominco American Incorporated/E. 15120 Euclid/Spokane, Washington 99216
Tel. (509) 922-87[illegible]

Cominco American

ploration and Geology

Ted Willmore
315 Stanford S. E.
Alburquerque, New Mexico 87106

April 1, 1982

Dear Ted:

Our budgets for 1982 are being finalized and I will not be working in Arizona this year.

As a result, I will be unable to visit your Pandora's Box claims as I had hoped. If our plans change I will advise you.

Thank you for your help and best wishes for your success.

Very truly yours,

Michael A. Hepp
Project Geologist

MAH:al

cc: Bill Mansker

PORT TALK: International Association of Business Communicators' Gold Quill winner for superior achievement in organizational communication. Edited and produced by William M. Powers.

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Cesar A. Cantu, San Diego, 232-2023
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San Diego International Marine, San Diego, 231-2460
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474-3532/8345

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FOR FURTHER INFORMATION, PLEASE CONTACT:

Robert A. Mercer
director, Trade Development
Port of San Diego
Post Office Box 488
San Diego, California 92112
Telephone: (714) 291-3900

TOLL FREE CALLS

For toll free calls outside of California to the Port of San Diego just dial 800-854-2757.

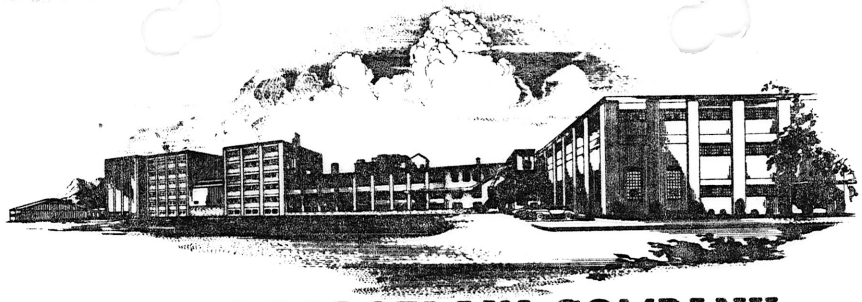
PORT TALK

The San Diego Unified Port District
Mailing Address: P.O. Box 488, San Diego, California 92112
General Offices: 3165 Pacific Highway, San Diego, California
Telephone: 291-3900

November, 1979

BULK RATE
U.S. POSTAGE
PAID
San Diego, California
PERMIT NO. 258

ADDRESS CORRECTION REQUESTED



COORS PORCELAIN COMPANY

GOLDEN, COLORADO 80401

(303) 278-4000 TELEX 45-593

April 12, 1982

Mr. Charles E. Willmore
President
Strategic Resources, Inc.
315 Stanford S.E.
Albuquerque, New Mexico 87106

Dear Mr. Willmore:

This will acknowledge your letter of April 1, 1982, outlining an orebody of kyanite which you have available for development.

Coors Porcelain Company is not primarily in the refractories field; and, as a result, we would not have any interest in this deposit.

We do thank you for thinking of Coors Porcelain Company.

Very truly yours,

Derald Whiting
President

RDW:pmp

THE UNIVERSITY OF NEW MEXICO | ALBUQUERQUE, NEW MEXICO 87131
DEPARTMENT OF GEOLOGY TELEPHONE 505-277-4204

January 31, 1979

Ted Willmore
315 Stanford S.E.
Albuquerque, NM

Dear Mr. Willmore:

Enclosed is a summary report of the kyanite sample you provided me. I apologize for not completing the study sooner, as it is very interesting; however, other duties kept me occupied.

I hope you find the summary of use in evaluating the kyanite deposit, it certainly looks promising if the volume of material is sufficient to maintain an operation.

Please contact me if I can be of further service.

Sincerely,

William L. Mansker
Research Assistant

INTERPACE CORPORATION

2901 LOS FELIZ BOULEVARD, LOS ANGELES, CALIFORNIA 90039 213-663-3361 TWX 9103214290 INTERPACE LSA
P.O. BOX 1111, GLENDALE, CALIFORNIA 91209 CABLE: INTERPACE

January 12, 1979

Mr. Ted Willmore
315 Stanford Southeast
Albuquerque New Mexico 87106

Dear Mr. Willmore:

Preliminary tests on a composite sample of your kyanite ore deposit have been completed. Mineralogically, the deposit consists of major quartz (60%) and kyanite with minor and trace amounts of pyrophyllite, kaolinite, andalusite, mica, feldspar, and montmorillonite. Although this deposit contains trace amounts of undesirable minerals, thermal and physical tests indicate that the material could be of value to us. Further testing is currently being conducted to determine the material's feasibility as a refractory.

In the near future, our Mining Department would be interested in conducting a geological investigation of this deposit.

Sincerely yours,

Douglas Yoshida

Douglas Yoshida
Mineralogist

DY/ba

Strategic Resources Inc.
315 STANFORD S.E., ALBUQUERQUE, NEW MEXICO 87106
(505) 268-3534

March 23, 1982

Mr. Jan Bowman
General Manager Eng. & Raw Materials
Kaiser Refractories
Division Kaiser Alum. & Chemical Corp.
300 Lakeside Drive
Oakland, California 94643

Dear Mr. Bowman:

Strategic Resources Company is the sole owner of a large massive kyanite orebody located in Western Arizona. This newly discovered kyanite orebody contains a substantial quantity of high alumina (60%+), remarkably pure lump kyanite which in its natural state, is at least the equal of the kyanite shipped from India over a number of years. The low iron and titanium content of this ore makes it especially attractive and places it in a class by itself.

The orebody is ideally situated with respect to economic considerations. It lies approximately 6 miles down an easily maintained all weather gravel road which in itself connects to a good hard surfaced state maintained highway. This road is paralleled by Santa Fe Railroad trackage with nearby sidings.

The orebody itself is exposed over large areas with little or no overburden in many places and will readily lend itself to a quarrying or open pit type of operation. It immediately becomes apparent to a qualified observer, that this orebody is so extensive as to be practically inexhaustible to supply world wide needs for many decades to come.

We at Strategic Resources believe that it might be mutually beneficial to enter into some kind of joint arrangement with an already well established refractories firm to develop and market this kyanite.

If you are seriously interested in looking into this matter, please contact me for further information.

Sincerely yours,

Charles E. Willmore,
President

SULFA GROUP Kyanite-Andalusite-Sillimanite YUMA CO.
Ellsworth Dist.

KP/WR 2/26/79 - Discussed sillimanite, kyanite and andalusite with Ted Willmore of Albuquerque, New Mexico, phone 505-255-7362. He owns the Sulfa Group of claims in Secs. 31 and 32, T6N, R14W and Secs. 5 & 6, T5N, R14W, Ellsworth District, Yuma County in the Granite Wash Mountains, Salome 15' quadrangle and Utting 15' quadrangle. He stated that the property has been sampled by an associate of Johns Manville who estimated the property to contain 100,000,000 tons of material containing kyanite and related minerals. Mr. Pasco, V.P. mining & exploration of Combustion Engineering plans to visit the property with Mr. Willmore on March 9, 1979, Department engineers have been invited to accompany them to the property. 4/13/79 a.p.

KAP WR 4/30/82: Ted Wilmore reported he has a scheelite (tungsten) occurrence on his Pandora's Box Mine.

RRB WR 7/9/82: Ted Willmore of Strategic Resources, Inc., 315 Stanford S.E., Albuquerque, N.M. 87106, owner of the Sulfa Group, Ellsworth District, Yuma County, and Joe Davis were in to put some information in our file. He has changed the name to the Saffire Group. He reported that he has been in contact with several companies and provided copies of their replies for us and a copy of a report by William L. Mansker.

PLEASE NOTE DATE!!
KAP 6/26/82: Mr. Ted Wilmor (Stragetic Resources) called from Albuquerque telephone 505-268-3534. (The Yuma County Kyanite). He wants help in obtaining freight rates to Mexico, Missouri, Vancouver and Los Angeles, plus data on how severance taxes will be applied to Kyanite. He has Japanese Trading companies, A. P. Greene (Missouri), Kaiser Aluminum and others interested.

SUMMARY REPORT OF
KYANITE SAMPLE WK-1

Submitted to T. Willmore
by W.L. Mansker, R.A.

DATE: January 31, 1979

MICROPROBE DETERMINATIONS OF KYANITE

POINT 1

1 CA	16	K	326	NA	88	FE	117	BC 14440
2 CA	15	SI	18447	MG	202	FE	109	BC 14457
3 CA	9	SI	18445	AL	81430	FE	104	BC 14472

	COUNTS	PEAK/BG	UNC WT%	CORR WT%	SD
SIO2	18446	415	34.51	37.11	0.20
AL2O3	81430	178	65.46	63.23	0.26
K2O	326	1	0.01	0.01	0.00
NA2O	88	1	0.00	0.00	0.03
CAO	13	0	0.00	0.00	-0.00
MGO	202	0	0.00	0.00	-0.01
FEO	110	2	0.23	0.23	0.01
4		TOTAL	100.22	100.59	

POINT 2

1 CA	14	K	317	NA	95	FE	97	BC 14478
2 CA	18	SI	18410	MG	223	FE	122	BC 14464
3 CA	14	SI	18573	AL	81170	FE	98	BC 14457

	COUNTS	PEAK/BG	UNC WT%	CORR WT%	SD
SIO2	18491	416	34.60	37.20	0.20
AL2O3	81170	178	65.32	63.09	0.26
K2O	317	1	0.01	0.01	0.00
NA2O	95	1	0.02	0.02	0.03
CAO	15	1	0.01	0.01	0.00
MGO	223	0	0.00	0.00	-0.01
FEO	105	1	0.21	0.22	0.01
4		TOTAL	100.17	100.54	

POINT 3

1 CA	12	K	355	NA	100	FE	143	BC 14438
2 CA	21	SI	18510	MG	214	FE	173	BC 14443
3 CA	16	SI	18311	AL	80084	FE	128	BC 14449

	COUNTS	PEAK/BG	UNC WT%	CORR WT%	SD
SIO2	18410	414	34.49	37.05	0.20
AL2O3	80084	176	64.48	62.34	0.26
K2O	355	1	0.02	0.02	0.00
NA2O	100	1	0.03	0.03	0.03
CAO	16	1	0.01	0.01	-0.00
MGO	214	0	0.00	0.00	-0.01
FEO	148	2	0.39	0.40	0.02
4		TOTAL	99.42	99.85	

REPRESENTATIVE

MICROPROBE DETERMINATIONS OF PYROPHYLITE

POINT 3

1 CA	11	K	337	NA	103	FE	90	BC 14411
2 CA	17	SI	36909	MG	203	FE	101	BC 14400
3 CA	16	SI	36614	AL	36068	FE	96	BC 14366

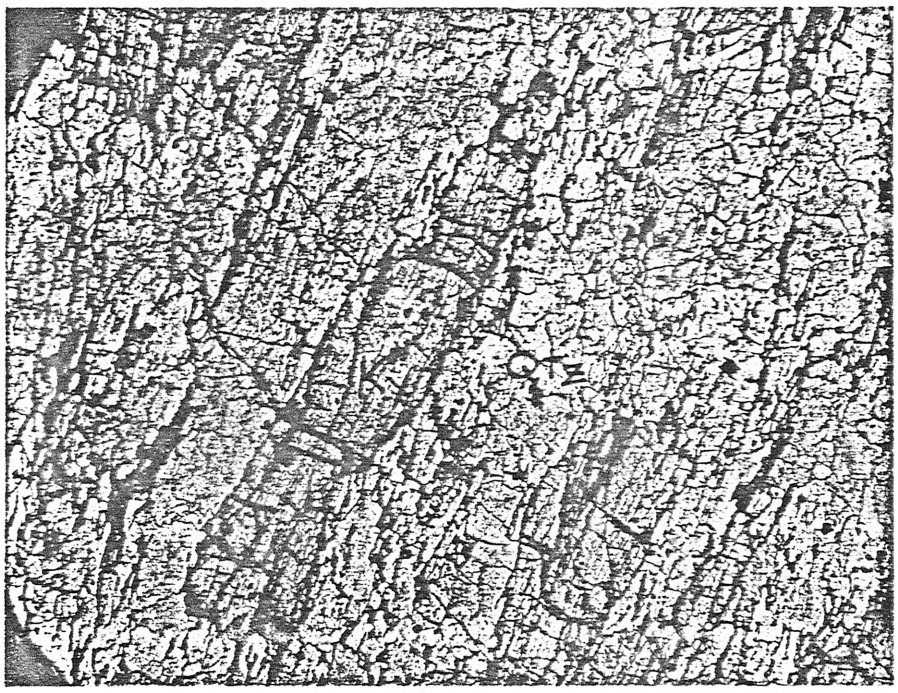
	COUNTS	PEAK/BG	UNC WT%	CORR WT%	SD
SIO2	36761	831	69.25	67.41	0.31
AL2O3	36068	79	29.01	28.35	0.16
K2O	337	1	0.01	0.01	0.00
NA2O	103	1	0.04	0.04	0.03
CAO	14	1	0.01	0.01	0.00
MGO	203	0	0.00	0.00	-0.01
FEO	95	1	0.17	0.18	0.01
4		TOTAL	98.49	95.99	

POINT 4

1 CA	25	K	475	NA	103	FE	80	BC 14334
2 CA	16	SI	37313	MG	199	FE	61	BC 14339
3 CA	18	SI	37213	AL	35877	FE	79	BC 14324

	COUNTS	PEAK/BG	UNC WT%	CORR WT%	SD
SIO2	37263	846	70.45	68.49	0.32
AL2O3	35877	79	28.94	28.27	0.16
K2O	475	1	0.06	0.06	0.00
NA2O	103	1	0.04	0.04	0.03
CAO	19	1	0.03	0.04	0.00
MGO	199	0	0.00	0.00	-0.01
FEO	73	1	0.08	0.08	0.00
4		TOTAL	99.59	96.97	

A



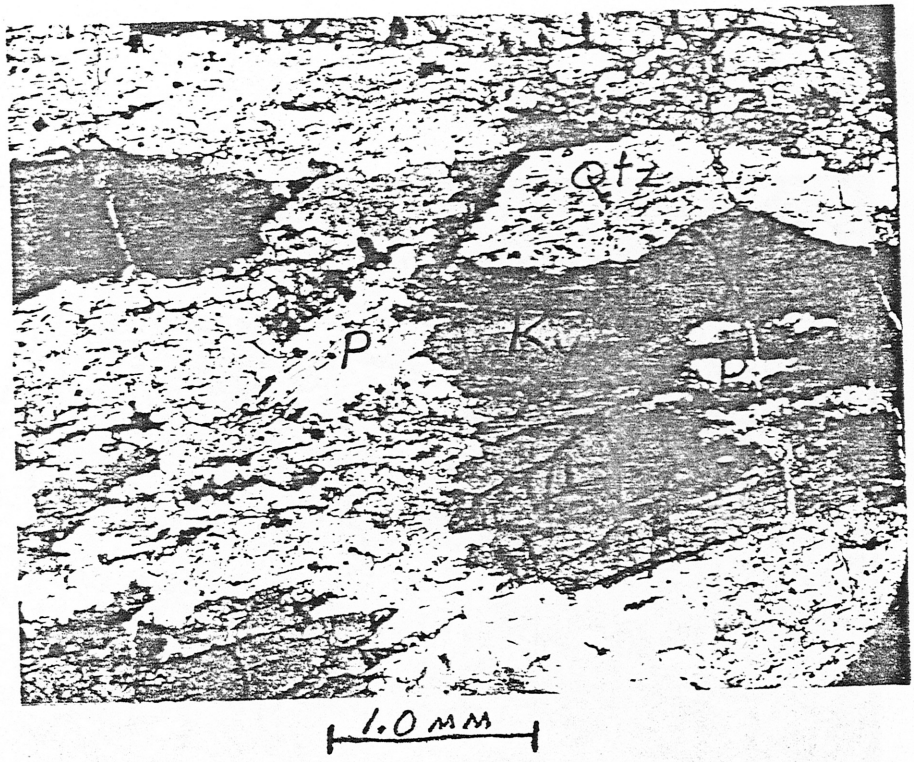
B

1.0 mm

K_y = KYANITE
Qt_3 = QUARTZ

Figure 1 A) X-NICOLS, K_y-Qt_3
WK-1
B. SAME, PLANE LIGHT

A



B

P = Pyrophyllite

Figure 2. A) X-Nicols, Pyrophyllite - Ky

B) X-Nicols, Pyrophyllite - Ky - Qtz

Strategic Resources Inc.
315 STANFORD S.E., ALBUQUERQUE, NEW MEXICO 87106
(505) 268-3534

March 23, 1982

Mr. Jan Bowman
General Manager Eng. & Raw Materials
Kaiser Refractories
Division Kaiser Alum. & Chemical Corp.
300 Lakeside Drive
Oakland, California 94643

Dear Mr. Bowman:

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We at Strategic Resources believe that it might be mutually beneficial to enter into some kind of joint arrangement with an already well established refractories firm to develop and market this kyanite.

If you are seriously interested in looking into this matter, please contact me for further information.

Sincerely yours,

Charles E. Willmore,
President

CLEMSON UNIVERSITY
CLEMSON, SOUTH CAROLINA 29631

CERAMIC ENGINEERING
OLIN HALL

TELEPHONE 656-3093
AREA CODE 803

April 10, 1979

Mr. E. E. Pasco
C-E Minerals
P O Box 649
Washington, GA 30673

ARIZONA KYANITE

Sample	Al_2O_3	Fe_2O_3	Expansion
1	56.9%	0.37%	10.4%
2	55.9	0.49	9.9
3	52.9	0.46	8.9
4	55.1	1.24	9.6
5	not received		
6	51.1	0.75	5.0

(Sample 3911 expanded 9.3% in same firing test)

(Sample 6 is high in andalusite)

3912	57.6%	1.75%

H H Wilson

C-E Minerals
Combustion Engineering, Inc.
Graves Mountain Plant
Post Office Box 649
Washington, Georgia 30673

MINERALS

add to file

Mr. Ted Willmore
315 Stanford S.E.
Albuquerque, New Mexico

Dear Ted:

The following information was derived from the samples taken from the kyanite occurrence on your sulfa claim group during my visit there in March.

Sample	% Kyanite
1	36%
2	23.6
3	23.4
4	25.4
5	(Not Analyzed)
6	13.4

The alumina, iron and expansion determinations were made on just the kyanite portions of the samples.

The column "% kyanite" also includes whatever sillimanite and andalusite might be present. Except for sample 6 which shows low expansion, these minerals are present in very minor amounts.

Overall the occurrence can only be given a rating of fair. Although the iron content is excellent, the alumina is low. For example, kyanite from either of the present domestic producers prepared in the same manner as these samples would analyze over 61% Al_2O_3.

The only possibility that we can see which would permit the development of your property is the appearance of a new market requiring a kyanite free from normally associated minerals. Your

material appears to be remarkably pure in this regard. Should such a potential come to our attention we will contact you, however, failing this we will have no further interest in the deposit.

For your information we have enclosed small samples of the kyanite concentrate obtained from the sample locations.

I enjoyed meeting you and your associates. Thanks for the hospitality. Best of luck with your ventures and if you are again involved with a non-metallic which needs evaluation, please contact us.

Yours very truly,

E. E. Pasco
Vice-President

EEP/lm

cc: K.A. Phillips


#1
#2
#3
#4
#6