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COUNTRY: Yuma	COUNTRY: U.S.	STATE: Ariz	NAME OF PROPERTY: Alamo & Alonch Groups	
DISTRICT OR AREA: Kofa Mtns	METALS: CU	ACCOUNT NUMBER:		NUMBER:
GENERAL DESCRIPTION: Cu mineralization along a shear zone in granite.		EXAMINED BY:		
		DATE:		
		BRIEFED BY:		
		DATE:		
		STATUS:		
TYPE OF DEPOSIT:				
GEOLOGY Granite exposed in opening in volcanic rocks. Jones (1915) considered it mesozoic, Wilson (1959) shows it as Precambrian. Both the Alamo and the Alonch Groups are along a NW shear zone in the granite.		LOCATION:		
		ELEVATION:		
		LAT:	LONG:	
		ACCESS:		
		DEVELOPMENT:		
MINERALIZATION:		PROPERTY & OWNERSHIP:		
GEOPHYSICS:		AERIAL PHOTOGRAPHS:		
GEOCHEMISTRY:		TOPOGRAPHIC MAPS:		
MAPS & REPORTS:				

MINERAL PROSPECT

DEPOSIT DATA SHEET

EDGEEX INTERNATIONAL, INC.

1704 WEST GRANT RD., TUCSON, ARIZONA 85705

PHONE (602) 624-7421

BY:

DATE:

NAME OF PROPERTY:

NUMBER:

REFERENCES: Jones, E. L., 1915, A Reconnaissance in the Kofe mountains
Arizona: U. S. Geol. Survey Bull. 620-H, p. 163-164

PRODUCTION & RESERVES

SAMPLES:

METALLURGY:

ENGINEERING:

FACILITIES:

EXPLORATION POSSIBILITIES:

ADDITIONAL INFORMATION OR SKETCH MAP:

KOTA MTS. RECON. JKS

Nov. 15 1972

Alamo area between camp and "Old
Head" - These prospects are on
pale green talc-like material.

SW of camp is N 20° W 65° SW dipping
sheared zone 20 to 40 ft wide with
moderate FeOx, spotty CuOx.

Exposures not adequate to be
certain of zone at shaft NW of
Red Rock ~~at~~ Dam, but some-
what wider, stronger Fe stained
zone could be on same trend.

12.1

65.0

3.7 mi low of Highway 72 intersection

Nov. 16, 1972 JKW
Sheep Tanks Mine

Nov. 17 1972

Copper glance Mine, Gifford
of Sturges Mng. Corp.

~~schist~~ green gtz-sericite (?) schist
cut by gtz veins, malachite,

cu sil₃, Cu pitch. also arkose,
gtzite. Several rotary drill

holes - not much Cu in cuttings

- zone 50' or so wide, other narrow

cu bearing zones. Foliation

striated, dips south or very
steep.

①

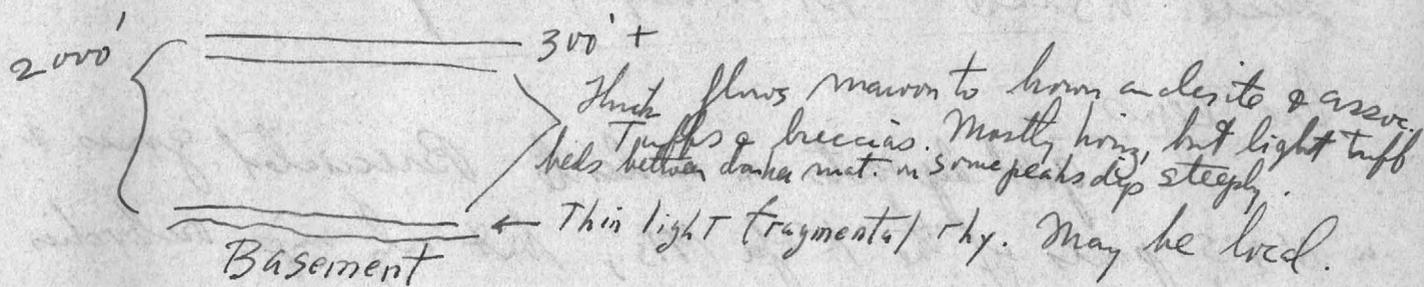
A Reconnaissance in the Kofa Mts., Ariz.
 USGS 620-H, 1915, 151-164.

Central Yuma Co. Mts have no definite trend - volcanic
 rks. dissected into flat-topped mesas (small) or jagged spires etc.
 Washes radiate to plains. Conglomerates.

Geol - The extrusives rest on the eroded metag-sals + peg.
 (pre-Cambrian?) intruded by granite & dikes, prob. Mesozoic.

Volcanics -

Top - Basalt - caps mesas.



The chy tuff, light-colored, has spaces of orthoclase, qtz, ls.
 Andalus - gray, red, brown etc. - bulk of flows. Vary from fine-grained
 dense, with few phenos to porphyritic + rock. Felds phenos
 mostly alt. to calcite; ls locally abundant. Small felds. labrad.
 6M = microcryst. feldspar aggregate, col. with FeOx. Olivine
 sparse, variable, more abundant toward top. Shows gradation
 in comp. between a dy. & overlying basalt.

Basalt - typical black vesicular at top, 6M of calcic felds.
 Laths of a-gite grains enclosing large xx of olivine, some of which
 opened to serp, in closed by rims of FeOx.

Granite NE part of area. Medium grained - qtz, felds, hbl etc.
 orthoclase, & a perthite ± 6 of ortho & albite. In some sections felds
 largely alt. to sericite. Hbl nowhere abundant, mostly alt. to epidote
 & calcite.

granite cut by diorite dikes, some 100' wide. Coarsely granular - large like & calc. felds. xv.

Diorite - Between the King of Arizona & N Star mines (2)
narrow dikes of monzonite porph. Traverse the highly
meta sed & ass. pegs. Not meta; ygr. locally altered
along shear zones. Fine dark-grey 6M, containing num. small
felds. & sparser amphibole phenos. Felds = orth
& plag. prob a diorite, 50-50. Felds partly alt
to sericite & cal. Amphib. green, partly alt. to chlorite
& calcite.

Seds - FW of N Star vein = dark pyritized meta -
shale or slate. Bi. structure nearby.

ore Deps -

Gold deposits in andesite. Brecciated zones & veins.
in N & S parts of the Kofa Mts, but only imp. orebodies one
in the King of Arizona & N Star mines.

These zones (except N Star vein) trend SE to E,
S dips from 45°-90°. N Star E-W, 60° N. Zones vary
from a few ft - 60' wide. Vein matrix = mic. andes., usually
sil. & acc. by stringers of calcite & qtz. Qtz commonly occurs as
a pseudomorph replacement of cal. Micro. adularia in the
"2nd" qtz of the N Star vein; also geysers vein. Mn as
brownish cal. or stains in the vein matrix.

Kofa Dist - King of Arizona. 1700' collar shaft - 200'
above sur. plain & 200' below highest pt in this area.
Inc. shaft 750', drifts at 100', adit at level of the shaft.
Shaft in HW, a shnd dist S of the OC & 100' lower. Drifts - 2000' to W;
E & 200'.

Lode or vein zone trends N60W & W & dips 60° S. W of shaft
 vein stopped to surface for 1500'. Stages few to 30' wide; OB
 sand to ave. 12'. (No mine dump). FW: well-def.
 sheared plane, but HW less def. to. OB contained
 many small fissures & small slip planes, most //
 trend of OB, but several at 45°, generally coming in
 from HW side, & make houses of barren mat. 200' E
 of shaft strong X fissures with cal. app. limit of the
 ore, for level ends in there.

Lode matrix = brecciated, brown to maroon
 a des. part. Hence to y GM has att. white pl. g. pieces
 & small, sparse at + FMs. A des. partly sil, esp. where
 fissuring is closely spaced. Stages of qtz & cal. Traverse
 lode in all directions. Knife-blade to sev' qtz xx,
 The small veinlets composed of qtz xx, but in those
 1" + thick walls usually lined with small qtz xx
 & calate occupies the middle. OJO. Think
 analogies for this contradiction. Cal brown to black
 highly Mn ferris. Lode matrix stained with Fe & Mn ox.

Av sand to vein free, but very finely divided.
 Av:Ag = 58:1 in value. Ore at surface very
 rich, much Fe & Mn. Ave \$40. Content steadily
 decreased with depth; at depth (750') Av+Ag < \$30
 Walls of OB diverge with increasing depth - 80' apart
 at bottom shaft.

N Star Mine

2000' elev. 90' SW' ④
#1 & #2 shafts

inclined. Drifts & x-cuts at each 100' lev. 3500'
lev. work. Water supply from wells > 1000' deep in
the desert plain 5 mi. S of mine.

Vein = Sil. andesite breccia & qtz starts E dips 60' N
10' ave. width. Prom. OC. SW. above CR. Marks in

ground way base of S hills of Kofa Mts. at mine
Traced several miles. at mine HW = point flow-banded
Andes. FW = dark calc. shale or slite. Fault
Vein matter - Near surface arg. frag. pit andes.

in place old to green & gray. Clin. by hard + chaled.
95' bands shown by matrix Sulph. xx, most or all py.
Sparse disse. py thin all side. Small vugs.
this mat. line with 95 xv. (Mic adularia with
the 95 - not abundant. green micaceous min in the
all side, also chlor - epi -

Same Ag - ag. as K of A. Au free & fine
dr. ; as with the fine sulph. in the drilled. 95.
Assay sec. shows hi-grade as shoots or chimneys
pitching E. Variable width; Au falls off with depth.
5th level (500') #14^{uv} assays in drifts below

lunched parts of fode show Au, Ag variable,
ave. #2^{uv} Surface ore very hi-grade. 1 stretch on
FW 56 - 820/16. Stages are 10' wide. #2 shaft sunk on
node in E of shoot 500' long, ave. > \$50. On 2nd of
lev hi-grade ore in several small shoots rep. by low-grade
these shoots seen

to join to form short $comp_{21}$ in length to that of 1st level, but which has a rapidly decreasing values.

N Star - no calcite; abundant chalcid
95 & py - differs in this respect from K & A.

Alamo Dist.

IMP

Brecciated zones in a des. (no short disconed yet)

Geysers Prospect - 30' incline shaft, + short drifts
& vents on 140 & 20' levels. Shaft at 45' in HW.

CR = red a-des. graph., with small masses of chalcid & a-des. tubbs & thin quartz beds. Look N 80 W, 45 S.
1 1/2 mi. Width few' - 60' on geysers claim's. Prominent ledge, in places 30' hi. Brecciated a-des. graph. repl. by S_1, V_2 in varying amounts. S.T. Δ 1' + of age replaced to form banded greenish sh.; in others small graph. frags alt - Abund. white. cse-x cut, esp. in FW where there are many st quartz venicles up to 1' wide. Lode near HW has Fe-st Karol - mat. in the many slips & seams, as the cementing substance of the breccia. Pseudomorph. of st after lamellar calcite occurs in the HW, & indicates dep. of calc. earlier than that dep. in FW.

Gold free. More along HW than along FW & esp. associated with the Fe-st Karol. mat. A hi-grade band of Fe-st free is seen 1' wide at surface but grad. down to 1' wide along a small flat plane at 90', & not seen below 140' lev.

HW 200' low. spec. shows abundant small Au particles
contained in thin film of Fe-stained kaolinitic material
enveloping a lamellar & aggreg. of pseudo-gt
after cal.

Rand Prospect. West geyser lode - 5' wide, shallow
shaft & drift. One hor. li-als. Am. mostly by
cal., with some Fe-st mat - gran Au. a ls. fine
hem. & sil. Has small nodules & venulets of
chal. gt, & small carbon-ox. py.

1 XL Prospect - E of geyser lode. 35' inc shaft,
on Fe-st hecia - has fine Au. Lode - hecia
of small a-ls frags can be f-g 2-day gt. Late
Calate veins, some 1" cut for hecia. Made -
a few a-ls in & ox in the 2-day gt.

Regal group. Regal #1 - Inc. shaft 35' on Fe-st. he. a-ls purple.
6' wide, N80°W, 45°S. S & Au. On Regal cl. 70' tunnel
N10E, & 35' winge, 2 shaft & drift. cal. a-ls purple. & grey truf.
cut by many steps gt & cal. mostly pers. Largest cal vein
6-8" winge n. of this. gt prisms (in 4' vein followed bottom
of winge) & in places pseudo after cal. Coaled Mn ox. Au.
COD - zone he. red a-ls purple N70W 10-40' wide, gently
sil., & place has 3' cal. vein. 100' shaft - dump sil. under
page, cal & ginge.
Big Horn - 200' shear zone, 2" slickenside go. ch. grades purple.
grey. have a purple; abundant alt. calcic fldps in June 64.

Thin flake Av in go from these figs. (2)

Cenitosa - 10' Base. zone of a des. push. N50W
90°, 1500' along W slope of a basalt-capped mesa
CR red to brown a dense, prop. app.
Grading to the basalt capping the mesa. Under
here probably a thin flow overlying granite - exp.
Same elev. sh. N50W. Zone 7-10. many col.
spots, some 1'. Part col. dark colored. 83 or higher.

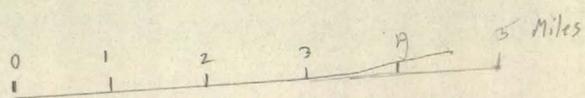
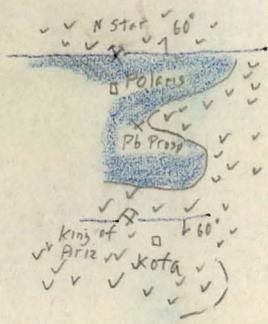
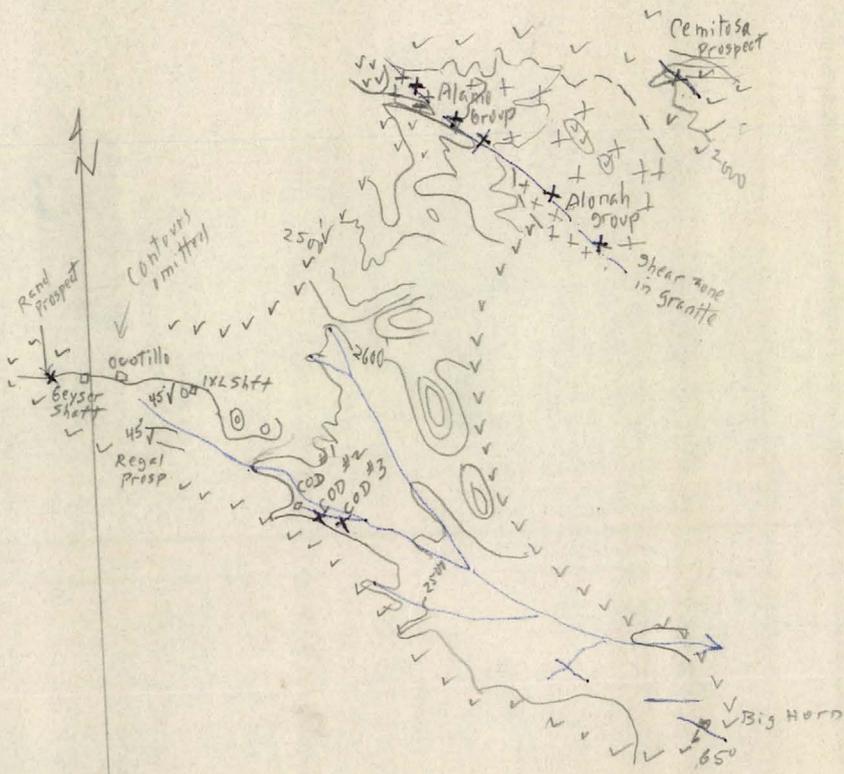
Copper Depos in granite - Along the shear zone
shown. Granite exposed in an area of low relief in a
zone 1 mi wide. Small knolls & mesas on level
surface of granite = quartz pebbles & tufts & a dense
shear zone marks in general way W limit of granite - probably
a fault. Along this zone granite HT altered, Ser, Chlp.
epidote & greenish talcose (min. prom. a shear of
basic dike = mainly alt. pyrox. occurs in this zone
& is assoc. with the CV min. of the Alamo group.

Alamo group - VC working of the shear zone.
Nearly all show CV-st ph.; in some are small irreg.
pieces of seams of or in res = chrysocolla, mal &
earthy ox. CR = gran & basic dike is alt. Many slip
planes. No rebody. Shallow holes in the sheared, alt gran.
Alonah group - Shallow holes in the sheared, alt gran.
app. along same shear zone. Along this zone granite fields

S.T. completely to SSW, FMS to Chlu., Ept. Small
seams & replacements of sheared granite by or in
& dissemin. may. Cu.

Pf Deps in Monzonite Porphyry Dike cuts pre-land
Meters on small ridge 1 mi N of K of A mine
Tunnel along a vein in the intrusive rock near the
contact. Vein = PbS dissemin. in a gangue of coarse
fluorapatite & calcite XX. Similar to economic dep
in the Castle Dome range (20 mi SW of Kofa).

-  Pre-Cambrian
Sed. schists &
Shale with peg.
intrusions
- ∨ ∨ Tertiary & Quater.
Andesites, tuffs,
breccias & basalt
- ++ Mesozoic
Granite



KOFA MTS.

VERITY & SMITH
ATTORNEYS AT LAW
SUITE 902 TRANSAMERICA BUILDING
177 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

VICTOR H. VERITY
LEO N. SMITH
JOHN C. LACY

AREA CODE 602
TELEPHONE 622-7445

November 1, 1971

Mr. Paul I. Eimon
Manager of Exploration
Essex International, Inc.
1704 West Grant Road
Tucson, Arizona 85705

OX/4
NOV 2 1971
RECEIVED

Dear Paul:

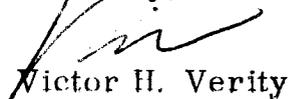
The Kofa Game Range is open to mineral entry under the mining laws. Enclosed is a Xerox copy of a map of the Kofa Game Range and the hunting regulations for 1971.

In addition to the information printed on the map, restrictions issued by the Department of Interior, Fish and Wildlife Services (revised 1965), contain the following:

The possession of firearms is forbidden except during authorized hunting seasons. Camping is permitted for not more than a few days at a time. Campers are requested to leave a clean camp, and not use more firewood than is necessary. Camping near waterholes is permitted only in such a manner that wildlife will not be denied use of the water.

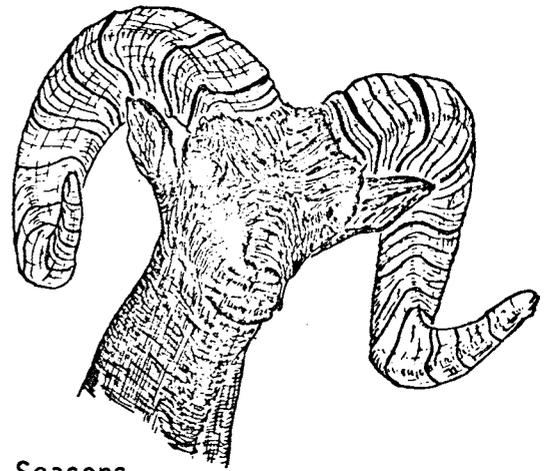
Most of the roads on the area are one-way trails, and many of them are passable only to 4-wheel-drive vehicles. Visitors should not travel on such roads without making prior inquiry at the refuge headquarters, which are in Yuma, Arizona, at 356 First Street. The mailing address is: P. O. Box 1032, Yuma, Arizona 85364.

Sincerely,


Victor H. Verity

VHV:emp
Enclosures

KOFA GAME RANGE
Yuma County, Arizona



1971 Hunting Regulations and Seasons

- (1) Possession of any firearm is prohibited except that those persons lawfully engaged in public hunting during the seasons listed below may use legal (as defined by State law) hunting weapons.
- (2) Hunting will be in accordance with applicable State regulations. The entire Kofa Game Range is open to hunting. Bighorn unit boundaries are shown on the map.
- (3) Littering is unlawful. Your cooperation in helping to keep the Game Range free of litter will be appreciated.

Hunting Seasons

Deer (archery only): September 3 through September 19, 1971, inclusive.

Deer (firearms only): October 29 through November 14, 1971, inclusive.

Bighorn (by State Permit only): December 4 through December 19, 1971, inclusive.

Quail
Rabbits
Coyotes
Gray Fox
Bobcat
Skunks
} : October 1 through November 30, 1971, inclusive.

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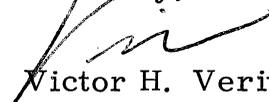
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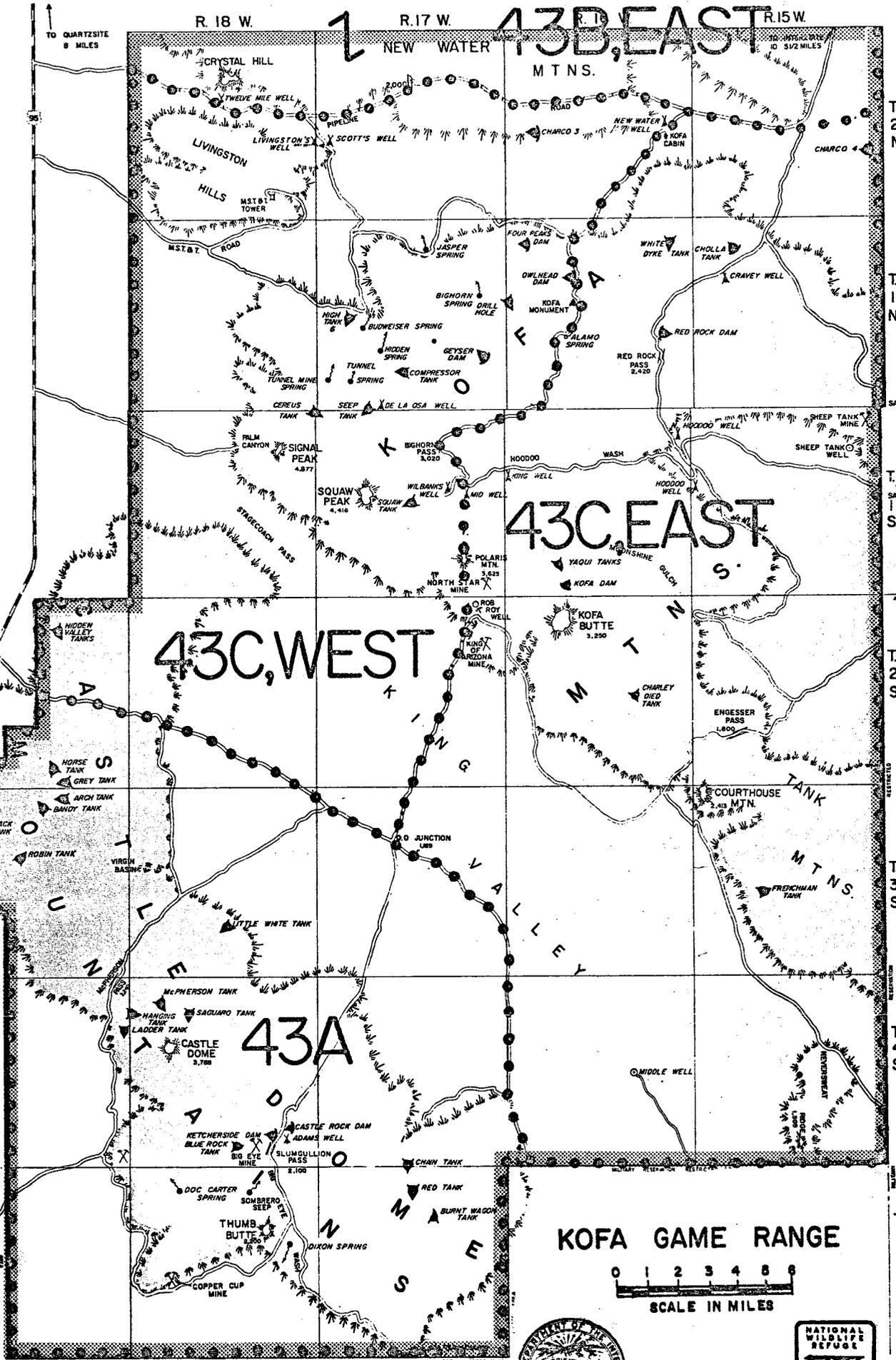
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TO YUMA 40 MILES

TO QUARTZSITE 8 MILES

RESTRICTED

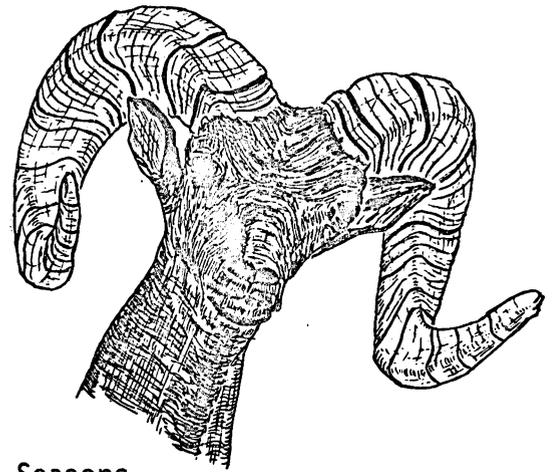
MILITARY RESERVATION RESTRICTED AREA

KOFA GAME RANGE



SCALE IN MILES

KOFA GAME RANGE
Yuma County, Arizona



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