

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MINERAL SURVEY NO. 4405

Arizona Land District.

FIELD NOTES

Of The Survey Of The Mining Claim Of

KENNECOTT COPPER CORPORATION

Known As The

COPPER ERA lode

Mineral Creek Mining District,

Pinal County, Arizona

Section 11, Township 3 S., Range 13 E.

Surveyed under order dated June 26 1956 (Amd.)
November 2, 1960 (Amd.)
February 27 1956

by OSCAR T. SMITH
Mineral Surveyor.

Claim located January 3, 1921

Survey commenced April 19, 1961

Survey completed April 27, 1961

Address of claimant Ray, Arizona

DATES OF AMENDED LOCATIONS

July 27, 1956

August 10, 1959

SURVEY NO. 4405

1.

Chains

This survey was made with a Keuffel and Esser Transit No. 131481, with horizontal limb 5 ins. diam., having two double opposite verniers and full vertical circle 5 ins. diam., having one double vernier; the verniers read to one minute of arc; the eyepiece is equipped with a colored shade set in the dust shutter for making direct observations upon the sun. The instrument was in good condition at the time of the survey and all adjustments were in good order.

All azimuths in this record were determined by the method of deflection angles referred to the meridian determined by the following observations;

April 21, 1961, at cor. No. 3 of the Copper Era lode, in latitude $33^{\circ}11'05''$ N., and longitude $110^{\circ}59'37''$ W., I make a series of six altitude observations upon the sun for azimuth at approximately equal time intervals, three each with the telescope in direct and reversed positions, observing opposite limbs of the sun, and reading the horizontal angle from a reference point about 600 ft. westward to the sun.

Mean time of observation, 105th
meridian standard time = $4^{\text{h}}26^{\text{m}}16^{\text{s}}$ P. M.

Declination of sun at mean
time of observation = $12^{\circ}02'22''$ N.

Mean observed vertical angle
to sun's center = $25^{\circ}13'36''$

Mean horizontal angle from
reference point to sun's center = $16^{\circ}08'30''$ S.W.

True bearing to reference point = S. $71^{\circ}57'21''$ W.

The lines were measured with a Keuffel and Esser steel tape 500 ft. in length, graduated every foot for 500 ft., and the first and last foot graduated in tenths and hundredths; the tape was compared with a standard 100 ft. invar steel tape at the time of beginning the survey and found correct.

All lines and connections of this survey were run by direct methods.

The magnetic declination observed at each corner of the survey gave a uniform value of $14^{\circ}30'$ E.

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Feet

At cor. No. 1 of the Copper Era lode, identical with cor. No. 2 Sur. No. 3088 Copper Zone No. 3 lode.

Set an iron pipe 2 ft. long, 1-1/2 in. diam., 2 ft. in ground, with brass cap mkd. C.E.-1-4405-CZ3-2-3088; from which

The 1/4 sec. cor. of secs. 3 and 10, T. 3 S., R 13 E., G. & S. R. M., bears N. $71^{\circ}06'30''$ W., 3622.50 ft. dist.; an iron pipe 1 in. diam. with brass cap 10 ins. above ground, firmly set, mkd. and witnessed as described in the official record.

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Chains	Feet	
		Cor. No. 4 Sur. No. 2605 Era No. 1 lode bears N. 73°40'20" E., 387.54 ft. dist. No local bearing objects or bearing trees available. Thence N. 71°58' E.
	178.88	Intersect line 3-4 Sur. No. 2605 Era No. 1 lode at a point from which cor. No. 4 bears N. 75°08' E., 208.80 ft. dist.
	300.00	Lode line; discovery point bears S. 18°09' E., 95.00 ft. dist.
	600.00	Cor. No. 2, on line 2-3 Sur. No. 3088 Copper Zone No. 3 lode. Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground, with brass cap mkd. CE-2-4405. No local bearing objects or bearing trees available. Thence S. 18°09' E.
	315.26	Intersect line 4-1 and 2-3, Sur. Nos. 3088 and 3087 Copper Zone No. 3 and Copper Zone No. 2 lodes, at a point from which cor. Nos. 1 and 2 bears S. 69°08' W., 568.48 ft. dist.
	915.29	Intersect line 4-1 and 2-3 Sur. Nos. 3087 and 3086 Copper Zone No. 2 and Copper Zone No. 1 lodes at a point from which cor. Nos. 1 and 2 bears S. 69°08' W., 512.49 ft. dist.
	1469.98	Intersect line 3-4 Sur. No. 2884 Eagle Brand lode at a point from which cor. No. 3 bears N. 89°45' W., 385.45 ft. dist.
	1500.00	Cor. No. 3. Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground, with brass cap mkd. CE-3-4405. No local bearing objects or bearing trees available. Thence S. 71°58' W.
	300.00	Lode line; discovery point bears N. 18°09' W., 1405 ft. dist.
	363.90	Intersect line 2-3 and 3-4 Sur. No. 2884 Eagle Brand lode and Sur. No. 2605 Era No. 2 lode at a point from which cors. Nos. 3 and 3 bears N. 18°51' W., 150.95 ft. and 584.38 ft. dist.
	459.51	Intersect line 1-2 Sur. No. 3086 Copper Zone No. 1 lode at a point from which cor. No. 2 bears N. 23°30' W., 561.92 ft. dist.

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Chain Feet	Description
600.00	Cor. No. 4. Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground, with brass cap mkd. CE-4-4405; from which Cor. No. 2 Sur. No. 3086 Copper Zone No. 1 lode bears N. 9°11'50" W., 566.09 ft. dist. Cor. No. 3 Sur. No. 2605 Era No. 2 lode bears N. 3°15'45" E., 627.14 ft. dist. Cor. No. 3 Sur. No. 2884 Eagle Brand lode bears N. 39°08'20" E., 278.40 ft. dist. No local bearing objects or bearing trees available. Thence N. 18°09' W.
447.09	Intersect line 4-1 Sur. No. 2605 Era No. 1 lode at a point from which cor. No. 4 bears N. 2°16' E., 1110.34 ft. dist.
596.99	Intersect line 2-3 Sur. No. 2605 Era No. 2 lode at a point from which cor. No. 3 bears N. 75°08' E., 229.37 ft. dist.
1500.00	Cor. No. 1, and the place of beginning.

AREAS

Description	Acres
Total area, Copper Era lode	20.661
Area in conflict with-	
Sur. No. 2605 Era No. 1 lode	4.705
Sur. No. 2605 Era No. 1 lode, exclusive of its conflict with	
(1) Sur. No. 3088 Copper Zone No. 3 lode	2.307
(2) Sur. No. 3087 Copper Zone No. 2 lode	3.350
(3) Sur. Nos. 3088 and 3087 Copper Zone No. 3 and Copper Zone No. 2 lodes	.952
Sur. No. 2605 Era No. 2 lode	3.152
Sur. No. 2605 Era No. 2 lode, exclusive of its conflict with	
(1) Sur. No. 2605 Era No. 1 lode	3.058
(2) Sur. No. 3087 Copper Zone No. 2 lode	3.069
(3) Sur. No. 3086 Copper Zone No. 1 lode	1.620
(4) Sur. Nos. 2605, 3087 and 3086 Era No. 1, Copper Zone No. 2 and Copper Zone No. 1 lodes	1.443
Sur. No. 2884 Eagle Brand lode	.756
Sur. No. 3086 Copper Zone No. 1 lode	6.386
Sur. No. 3086 Copper Zone No. 1 lode, exclusive of its conflict with	
(1) Sur. No. 2605 Era No. 2 lode	4.854
(2) Sur. No. 2884 Eagle Brand lode	5.630
(3) Sur. Nos. 2605 and 2884 Era No. 2 and Eagle Brand lodes	4.098
Sur. No. 3087 Copper Zone No. 2 lode	7.437

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Cors	Acres
Sur. No. 3087 Copper Zone No. 2 lode, exclusive of its conflict with	
(1) Sur. No. 2605 Era No. 2 lode	7.354
(2) Sur. No. 2605 Era No. 1 lode	6.082
(3) Sur. No. 2605 Era No. 2 and Era No. 1 lodes	5.999
Sur. No. 3088 Copper Zone No. 3 lode	4.420
Sur. No. 3088 Copper Zone No. 3 lode, exclusive of its conflict with Sur. No. 2605 Era No. 1 lode	2.022

LOCATION

This survey is located in the N.W. 1/4, Sec. 11, T. 3 S., R. 13 E., G. & S. R. M.

The survey of the Copper Era lode is identical with the respective location or amended location as marked on the ground.

EXPENDITURES

The improvements and the value of the labor and improvements made upon or for the benefit of the lode location embraced in said mining claim by the claimant or its grantors are as follows:

- No. 1 The discovery point of the Copper Era lode is on the lode line 95.00 ft. from the center of line 1-2.
No value.
- No. 2 A tunnel 4x6 ft. in size, the portal of which bears S. 66°45' E., 168.00 ft. from cor. No. 1 Copper Era lode; running N. 85° E., 107 ft. to sta. 1; thence S. 86°40' E., 89 ft. to breast. At sta. 1 a drift 4x5 ft. in size runs S. 3° E., 54 ft. to breast.
Value, \$10,000.00
- No. 3 A diamond drill hole, the center of which bears S. 32° 08' E., 626.5 ft. from cor. No. 1 Copper Era lode, 894 ft. deep.
Value, \$5,364.00

OTHER IMPROVEMENTS

None.

OTHER CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

Sur. No. 2605 Era No. 1 lode: Cors. Nos. 1, 2, 3 and 4 have been destroyed. Lines 3-4 and 4-1 are shown as approved.

Sur. No. 3088 Copper Zone No. 3 lode: Cors. Nos. 1 and 2 have been destroyed. Cors. Nos. 3 and 4 are rocks firmly set and properly mkd. Lines 1-2, 2-3 and 4-1 are shown as approved.

Sur. No. 3087 Copper Zone No. 2 lode: Cors. Nos. 1 and 2 have been destroyed. Cors. Nos. 3 and 4 are rocks firmly set and properly mkd. Lines 1-2, 2-3 and 4-1 are shown as approved.

Sur. No. 3086 Copper Zone No. 1 lode: Cors. Nos. 1 and 2 have been destroyed. Cors. Nos. 3 and 4 are rocks firmly set and properly mkd. Lines 1-2, 2-3 and 4-1 are shown as approved.

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5.

Chains

Sur. No. 2884 Eagle Brand lode: Cors. Nos. 2 and 3 were destroyed and reset by owners with a 1-1/2 in. pipe with brass cap properly mkd. Cor. No. 4 a rock in place properly mkd. Line 2-3 was found to be N. 18°51' W., 1506.50 ft. instead of N. 18°51'28" W., 1503.64 ft. as approved. Line 3-4 was found to be S. 89°45' E., 576.00 ft. instead of E. 577.35 ft. as approved.

Sur. No. 2605 Era No. 2 lode: Cors. Nos. 2, 3 and 4 have been destroyed and reset by owners with a 1-1/2 in. iron pipe with brass cap properly mkd. Line 2-3 was found to be correct as approved. Line 3-4 was found to be approximately correct as approved.

FIELD ASSISTANTS

Name	Capacity
Lee Cook	Chainman

SURVEX NO. 8402

<p>Chris-</p>	<p>2. 89°43' E., 576.00 ft. instead of 2. 577.35 ft. as approved. 1503.64 ft. as approved. Line 3-4 was found to be 18°21' W., 1508.50 ft. instead of 18°21'38" W. in place properly mks. Line 3-3 was found to be 18°21' W. in place properly mks. Cor. No. 4 rock pipe with brass cap properly mks. Cor. No. 4 were destroyed and reset by owners with a 1-1/2 in. iron pipe with brass cap properly mks. Line 3-3 was found to be correct as approved. Line 3-4 was found to be approximately correct as approved.</p>	<p>2. 89°43' E., 576.00 ft. instead of 2. 577.35 ft. as approved.</p>
<p>City Chasman</p>	<p>FIELD ASSISTANTS</p>	<p>Lee Cook</p>

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SURVEYOR

August 12, 1964

I, OSCAR T. SMITH

Mineral Surveyor, hereby certify upon honor that in pursuance of an order received from the Office Cadastral Engineer at Phoenix, Arizona February 27, 1956, Amended June 26, 1956, and Amended dated November 2, 1960, I have faithfully and correctly executed the survey of

the mining claim of Kennecott Copper Corporation

known as the Copper Era

(Lode, placer, or mill site)

situate in Mineral Creek Mining District, Pinal County, Sec. 11

T. 3 S., R. 13 E., G. & S. R. Meridian, Arizona

(State)

designated as Survey No. 4405, which is represented in the foregoing field notes as having been executed by me and under my direction, and that said survey has been made in strict conformity with said order, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes, and I do further certify that the labor expended and improvements made

upon or for the benefit of the lode location(s) embraced in the said mining claim by

(Lode or placer)

claimant(s) or its grantors are fully stated in my report therein, and that the character, extent, location, and itemized value thereof are specified therein with particularity and full detail, and that no portion of, or interest in, said labor and improvements so credited to this claim has been included in the estimate of expenditures upon any other claim.

Globe, Arizona
(Place)

Oscar T. Smith
(Mineral Surveyor)

CERTIFICATE OF APPROVAL

Bureau of Land Management
Arizona State Office

(Office)

Phoenix, Arizona October 21, 1964

(Place)

(Date)

The foregoing field notes of mineral survey No. 4405, in Section 11

T. 3 South, R. 13 East, Gila & Salt River Meridian,

Arizona, executed by Oscar T. Smith, Mineral Surveyor,

(State)

February 27, 1956, Amended June 26, 1956 and

under order dated Amended November 2, 1960, having been critically examined and the necessary corrections made prior to their certification by the surveyor, the field notes and the survey therein described are hereby approved.

Raymond C. Cleghorn
Raymond C. Cleghorn

Acting State Director

(Title)

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of field notes of the above described mineral survey No. is a true copy of the original field notes.

(Title)

OFFICE OF THE ATTORNEY GENERAL
STATE OF MISSISSIPPI

Office

Montgomery, Alabama

August 15, 1933

Copper Hill

General George Washington, Pine County, Neb. 11

1933

John

1933

John

OFFICE OF THE ATTORNEY GENERAL

Montgomery, Alabama

1933

1933

OFFICE OF THE ATTORNEY GENERAL