

Form 3860-10
(February 1987)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELD NOTES

Mineral Survey Number

4886

State

Arizona

Land District

Arizona

Of the Survey of the Mining Claim of *(name and address of claimant)*

Carlota Copper Company
8101 E. Prentice Ave Suite 800
Englewood CO 80111

Known as the *(name of group, if any)*

None

NAME OF CLAIM(S)

NAME OF LOCATION	DATE			BLM MINING CLAIM SERIAL NUMBER
	LOCATED AND AMENDED	RECORDED WITH COUNTY	RECORDED WITH BLM	
Rejected 9	1-28-80	2-1-80	2-19-80	AMC 97639
Rejected No. 3	4-20-56	4-30-56	10-19-78	28016

LOCATION OF CLAIM(S)

Mining district Globe			County Gila	
Section 6 36 and 31	Township 1 S; 1 North	Range 14 E; 13 & 14 E	Meridian Gila & Salt River	Survey under order dated June 17, 1993
Survey commenced July 27, 1993		Survey completed Sept. 29, 1993	Name of Mineral Surveyor Gordon W. McLain	

FEET

This survey was made with a Kern DKM-2AE directional theodolite, serial number 327596, with a horizontal circle of 80mm. diam. and a vertical circle of 74mm. diam., both circles are read through an optical micrometer which reads both circles directly to 1 arc second. The instrument was in good condition at the time of survey, and all adjustments were in good order.

All azimuths in this record were determined by direction angles, measured to the right, and are referred to the meridian determined by the following observations:

On September 5, 1993, at Corner No 2 of the Rejected No.3 lode, in latitude $33^{\circ}23'00''$ N., and longitude $110^{\circ}58'30''$ W., barometric pressure, 26.3 ins/Hg, and temperature 81° F., we made a series of six altitude observations on the sun for azimuth, at approximately equal time intervals, three each, with the telescope in direct and reverse positions, observing the center of the sun, and reading the horizontal angle to the right from WC Cor. No.1, Rejected No.3 lode, clockwise towards the sun.

Mean time of observation,
105th meridian standard
time = $9^{\text{h}}16^{\text{m}}38^{\text{s}}$ a.m.

Declination of sun at mean
time of observation = $6^{\circ}38'16''$

Mean observed vertical angle
to sun's center = $39^{\circ}05'02''$

Mean horizontal angle from
WC Cor. No.1 clockwise to
sun's center = $257^{\circ}07'45''$

True bearing to WC Cor.
No.1 = $S.33^{\circ}45'52''$ W.

The lines were measured with a Kern DM-503 electronic distance meter, Serial No.325565 and with a Lufkin 100 ft. steel tape, graduated every foot for 99 ft. and the remainder in tenths and hundredths of a foot; The tape and electronic distance meter were compared with the Tucson Calibration Base Line at the beginning of the survey.

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Mineral Survey No. 4886

FEET	
	<p>All lines and connections of this survey were run by direct methods where the lines are accessible; the inaccessible lines were run by traverse methods.</p> <p>The magnetic declination observed at each corner of the survey gave a uniform value of 14° E.</p> <hr/> <p>Mineral Survey No.4886</p> <hr/> <p>REJECTED 9 LODE</p> <p>At Cor. No.1 of the Rejected 9 lode.</p> <p>Set an aluminum post, 30 ins. long, 3/4 ins. diam., 20 ins. in the ground, and in a mound of stone, 3 ft. base, to the top, with the aluminum cap mkd. 1-R9-4886; from which</p> <p>The Stan. cor. of Tps.1 N., Rs. 13 and 14 E., Gila and Salt River Meridian, bears $N.47^{\circ}34'53''E.$, 789.0 ft. dist.; monumented with a stone, 6x8 ins., 12 ins. above the ground, firmly set and properly mkd..</p> <p>No local bearing objects or bearing trees available</p> <p>Thence $N.56^{\circ}12'W.$</p> <p>13. Wash, 3 ft. wide, course $S.80^{\circ}E.$</p> <p>300.00 Lode line; discovery point bears $N.33^{\circ}48'32''E.$, 1000.0 ft. dist..</p> <p>600.00 Cor. No.2, identical with Cor. No.2, M.S. No.2666 Greater Republic No.2 lode and Cor. No.4, M.S. No.3839 Clare lode, claimant of both herein.</p> <p>Set an aluminum post, 30 ins. long, 3/4 ins. diam., 20 ins. in the ground, and in a mound of stone, 3 ft. base, to top, with the aluminum cap mkd. 2-R9-4886, 2-GR2-2666 and 4-C-3839, deposit the original stone alongside.</p>

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FEET	
	<p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence N.33°48'32"E.</p>
150.	Wash, 4 ft. wide, course N.20°W.
900.60	Cor. No.1, M.S. No.2667 Greater Republic lode, claimant herein.
1077.	Wash, 4 ft. wide, course N.42°W.
1270.	Center of a dirt road, 10 ft. wide, bears N.83°W. and S.83°E.
1330.	Left bank of Pinto Creek, 143 ft. wide, course N.60°W.
1499.68	<p>Cor. No.3, identical with Cor. No.1, M.S. No.2666 Greater Republic No.2 lode, Cor. No.2, M.S. No.2667 Greater Republic lode and Cor. No.3, M.S. No.3839 Clare lode.</p> <p>On line 1-2, M.S. No.2667 Monroe Doctrine lode.</p> <p>Set an iron post, 30 ins. long, 3/4 ins. diam., 18 ins. in the ground, and in a mound of stone, 3 ft. base, to top, with the aluminum cap mkd. 3-R9-4886, 1-GR2-2666, 2-GR-2667 and 3-C-3839, deposited the 1/2 ins. iron spike alongside.</p>
	<p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence S.56°12'E.</p>
85.	Right bank of Pinto Creek, 140 ft. wide, course S.82°W.
300.00	Lode line; discovery point bears S.33°48'32"W., 499.68 ft. dist.
535.00	Cor. No.1 Rejected No.3 lode of this survey, identical with Cor. No.1, M.S. No.2667 Monroe Doctrine lode, claimant herein.
600.00	Cor. No.4.
	<p>On line 4-1, Rejected No.3 lode of this survey.</p>

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FEET	
	<p>This cor. falls in Pinto Creek where a permanent monument cannot be established; from this point Cor. No.1, M.S. No.2667 Greater Republick lode, bears S.78°50'54"W., 847.95 ft. dist.</p>
	<p style="text-align: center;">Thence S.33°48'32"W.</p>
36.	Left bank of Pinto Creek, 140 ft. wide, course N.58°W.
60.00	A Point for witness Cor. No.4.
	<p>Set iron post, 30 ins. long, 3/4 ins. diam., 18 ins. in the ground, and in a mound of stone, 3 ft. base, to top, with the aluminum cap mkd. WC-4-R9-4886.</p>
325.17	Intersect line 4-1, M.S. No.2667 Greater Republick lode, at point from which Cor. No.1 bears N.80°44'12"W., 659.61 ft. dist.
341.	Wash, 4 ft. wide, course N.80°E.
1494.	Wash, 3 ft. wide, course S.80°E.
1499.68	Cor. No.1, and place of beginning.
	<p style="text-align: center;">REJECTED NO.3 LODE</p>
	<p>Beginning at the true point for Cor. No.1 of the Rejected No.3 lode, identical with Cor. No.1 M.S. No.2667 Monroe Doctrine lode.</p>
	<p>On line 3-4, Rejected 9 lode of this survey.</p>
	<p>This cor. falls in Pinto Creek where a permanent monument cannot be maintained.</p>
	<p>Set a temporary spike for Cor. No.1, from which;</p>
	<p style="padding-left: 40px;">The Stan. cor. of Tps.1 N., Rs. 13 and 14 E., bears S.14°47'10"W., 775.71 ft. dist., heretofore described.</p>
	<p style="padding-left: 40px;">Cor. No.2, M.S. No.2667 Arbitration lode, claimant herein, bears N.33°45'52"E., 2404.52 ft. dist.</p>
	<p style="padding-left: 40px;">Cor. No.4, M.S. No.2667 Greater Republick lode, bears S.57°50'40"E., 829.75 ft. dist.</p>

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FEET	Thence N.33°45'52"E.
93.	Right bank of Pinto Creek, 140 ft. wide, course S.58°W.
123.	Overhead electrical line, bears N.50°W. and S.50°E.
187.	Center of a dirt road, 30 ft. wide, bears N.45°W. and S.45°E.
200.00	A Point for witness Cor. No.1.
	On line 4-1, M.S. No.2667 Monroe Doctrine lode.
	Set an iron post, 30 ins. long, 3/4 ins. diam., 20 ins. in the ground and in a mound of stone, 3 ft. base, to top, with the aluminum cap mkd. WC-1-R3-4886.
244.16	Intersect line 2-3, M.S. No.2667 Greater Republick lode, at a point from which Cor. No.3 bears S.80°44'12"E., 912.02 ft. dist.
246.	Left bank of Cottonwood Gulch, 120ft. wide, course S.70°W.
300.00	Lode line; discovery point bears S.56°11'36"E., 70.0 ft dist.
381.	Right bank of Cottonwood Gulch, 70 ft. wide, course S.70°W.
467.	Overhead electrical line, bears N.60°E. and S.60°W.
533.	Center of dirt road, 15 ft. wide, bears N.61°E. and S.61°W.
600.00	Cor. No.2.
	On line 4-1, M.S. No.2667 Monroe Doctrine lode.
	Set an iron post, 30 ins. long, 3/4 ins. diam., 18 ins. in the ground, and in a mound of stone, 3 ft. base, to the top, with the aluminum cap mkd. 2-R3-4886.
	Cor. No.3, M.S. No.2667 Greater Republick lode, bears S.57°46'49"E., 830.20 ft. dist.

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FEET	
	<p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence S.56°11'12"E.</p>
16.	Center of a dirt road, 10 ft. wide, bears N.14°E. and S.20°W.
65.	Overhead electrical line, bears N.60°E. and S.60°W.
83.	Left bank of Cottonwood Gulch, 20 ft. wide, course S.32°W.
139.	Center of a dirt road, 12 ft. wide, bears N.24°E. and S.24°W.
140.	Underground waterline, 3 ins. diam., bears N.14°E. and S.20°W.
446.	Wash, 6 ft. wide, course N.63°W.
779.33	Intersect line 2-3, M.S. No.2667 Greater Republick lode, at a point from which Cor. No.3 bears S.80°44'12"E., 55.57 ft. dist.
829.88	Intersect line 3-4, M.S. No.2667 Greater Republick lode, at a point from which Cor. No.4 bears S.33°48'32"W., 575.99 ft. dist.
1499.62	<p>Cor. No.3</p> <p>Set an aluminum post, 30 ins. long, 3/4 ins. diam., 18 ins. in the ground, and in a mound of stone, 3 ft. base, to the top, with the aluminum cap mkd. 3-R3-4886.</p> <p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence S.33°45'52"W.</p>
299.82	Lode line; discovery point bears N.56°11'36"W., 1429.62 ft. dist.
599.65	<p>Cor. No.4.</p> <p>Set an aluminum post, 30 ins. long, 3/4 ins. diam., 18 ins. in the ground, and in a mound of stone, 3 ft. base, to the top, with the aluminum cap mkd. 4-R3-4886.</p>

FEET	
	Cor. of the location bears S.3°24'E., 1.2 ft. dist. No local bearing objects or bearing trees available. Thence N.56°12'W.
308.	Wash, 5 ft. wide, course S.34°W.
722.36	Intersect line 4-1, M.S. No.2667 Greater Republick lode, at a point from which Cor. No.4 bears S.80°44'12"E., 57.34 ft. dist.
924.	Wash, 6 ft. wide, course S.48°W.
1138.	Left bank of Pinto Creek, 170 ft. wide, course N.48°W.
1434.62	Cor. No.4 Rejected 9 lode of this survey.
1499.62	Cor. No.1, and place of beginning.
Mineral Survey No.4886	
AREAS	
	Acres
Total area, Rejected 9 lode.....	20.657
Area in conflict with -	
Tract A, hereinafter described.....	0.175
M.S. No.2667 Greater Republick lode.....	6.365
M.S. No.2667 Greater Republick lode, exclusive of its conflict with Tract A.....	6.190
Total area, Rejected No.3 lode.....	
	20.650
Area in conflict with -	
Tract B, hereinafter described.....	2.809
M.S. No.2667 Greater Republick lode.....	8.229
M.S. No.2667 Greater Republick lode, exclusive of its conflict with Tract B.....	5.420
TRACT A	
That portion of M.S. No.2667 Greater Republick lode, in conflict with Rejected 9 lode of this survey, excluded by said Greater Republick lode in favor of	

FEET	<p>the location Maggie lode, now abandoned, is bounded and described as follows:</p> <p>Commencing at Cor. No.1, M.S. No.2667 Greater Republick lode; Thence S.80°44'12"E., 320.46 ft. along line 1-4 of said Greater Republick lode, to the point of beginning; Thence N.62°47'E., 20.1 ft. to the NW cor. of the Maggie lode; Thence S.84°28'E., 339.24 ft., to line 4-1, Rejected 9 lode of this survey; Thence S.33°48'32"W., 37.40 ft. to line 4-1, of said Greater Republick lode; Thence N.80°44'12"W., 339.15 ft. along line 4-1, of said Greater Republick lode to the point of beginning.</p> <p>Tract A containing 0.175 acres.</p> <p style="text-align: center;">TRACT B</p> <p>That portion of M.S. No.2667 Greater Republick lode in conflict with Rejected No.3 lode of this survey, excluded by said Greater Republick lode in favor of the locations, Maggie, Gold Bug and Lookout lodes now abandoned, is bounded and described as follows:</p> <p>Beginning at Cor. No.4, M.S. No.2667 Greater Republick lode _____ Thence N.33°48'32"E., 575.99 ft., along line 3-4, of said Greater Republick lode to line 2-3 Rejected No.3 lode of this survey; Thence N.56°11'12"W., 50.55 ft., to line 2-3 of said Greater Republick lode; Thence N.80°44'12"W., 161.63 ft., along line 2-3 of said Greater Republick lode to the North sideline of the Lookout lode; Thence S.60°07'W., 276.8 ft., to the NW cor. of the Lookout lode; Thence S.19°23'E., 305.1 ft., to the NE cor. of the Gold Bug lode; Thence S.62°47'W., 31.7 ft., to the NE cor. of the Maggie lode; Thence N.84°28'W., 156.31 ft., to line 4-1, Rejected No.3 lode of this survey;</p>
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FEET	
	<p>Thence S.56°12'E., 176.83 ft., along line 4-1 Rejected No.3 lode of this survey, to line 4-1 of said Greater Republick lode;</p> <p>Thence S.80°44'12"E., 57.34 ft., to Cor. No.4 and place of beginning.</p> <p>Tract B containing 2.809 acres.</p>
	<p>LOCATION</p> <p>This survey is located in the SE 1/4 sec.36, unsur., T.1 N., R.13 E., SW 1/4 sec.31, Uns., T.1 N., R.14 E., NW 1/4 and NE 1/4, sec.6, T.1 S., R.14 E., Gila and Salt River Meridian, Gila County, Arizona.</p> <p>The survey of the Rejected 9 lode is identical with the locaton as marked on the ground. The survey of the Rejected No.3 lode is wholly within the location as marked on the ground; Cors. Nos.1,2 and 3 are identical with the corners of the location; Cor. No.4 differs to the extent as previously shown.</p>
	<p>EXPENDITURES</p> <p>The improvements and the value of the labor and improvements made upon or for the benefit of each of the lode locations embraced in said mining claim by the claimant or its grantors are as follows:</p>
No.1	<p>The discovery point of the Rejected 9 lode is on the lode line 1000.0 ft. from a point on line 1-2, 300.0 ft. from Cor. No.1.</p> <p>Value, none.</p>
No.2	<p>A drill hole 6 ins. in diam., 400 ft. in depth, the collar of which bears S.14°10'W., 206.3 ft. dist. from Cor. No.3 Rejected 9 lode. (Claimant No.CR9218).</p> <p>Value, \$2,400.</p>
No.1	<p>The discovery point of the Rejected No.3 lode is on the lode line 70.0 ft. from a point on line 1-2, 300 ft. from Cor. No.1.</p> <p>Value, none.</p>

FEET

OTHER IMPROVEMENTS

A water well, 12 ins. in diam., 383 ft. in depth, the collar of which bears $S.59^{\circ}31'E.$, 483.5 ft. dist. from Cor. No.1 Rejected No.3 lode; the well is enclosed, by a 11x30 ft. chain link fence, from which the SW cor. bears $S.59^{\circ}37'E.$, 464.4 ft. dist. from Cor. No.1 Rejected No.3 lode; the long sides of the fence bear $S.40^{\circ}30'E.$

Claimant, Magma Copper Co.

Overhead electrical lines, as described herein and shown on the official plat of this survey, which affects the Rejected No.3 lode.

Claimant, Magma Copper Co.

Underground waterline, 3 ins. diam. as described herein, which affects the Rejected No.3 lode.

Claimant, Magma Copper Co.

OTHER CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

M.S. No.2666 Greater Republic No.2 lode: Cor. No.1 is identical with Cor. No.2, M.S. No.2667 Greater Republic lode and Cor. No.3, M.S. No.3839 Clare lode which is monumented with an iron spike, 1/2 ins. diam.; Cor. No.2 is identical with Cor. No.4, M.S. No.3839 Clare lode and is monumented with a stone, firmly set and properly mkd.; Line 1-2 was found to be $S.33^{\circ}48'32"W.$, 1499.68 ft., instead of $S.33^{\circ}46'W.$, 1500 ft., as approved; From Cor. No.1 the Stan. cor. of Tps.1 N., Rs. 13 and 14 E., bears $S.13^{\circ}14'45"E.$, 1076.28 ft., instead of $S.13^{\circ}11'E.$, 1075 ft., as approved.

M.S. No.2667 Greater Republic lode: Cors. No.1 and 4 are monumented with weathered pine posts, loosely set in a mound of stones, markings illegible; Cor. No.2 is identical with Cor. No.1, Greater Republic No.2 lode described above; Cor. No.3 could not be found; the bearing objects for Cors. Nos.2 and 3 could not be found; Line 1-2 was found to be $N.33^{\circ}48'32"E.$, 599.08 ft., instead of $N.33^{\circ}48'E.$, 600 ft., as approved; line 4-1 was found to be $N.80^{\circ}44'12"W.$, 1499.96 ft., instead of $N.80^{\circ}42'W.$, 1500 ft., as approved; lines 2-3 and 3-4 were approved as parallel with and equal length to line 4-1 and 1-2 respectively; this makes line 2-3, $S.80^{\circ}44'12"E.$, 1499.96 ft., instead of $S.80^{\circ}42'E.$, 1500 ft., as

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approved; line 3-4 is S.33°48'32" W., 599.08 ft., instead of S.33°48' W., 600 ft., as approved; From Cor. No.1 the Stan. cor. of Tps.1 N., Rs. 13 and 14 E., bears S.46°31'32" E., 799.18 ft., instead of S.46°36' E., 797.3 ft., as approved.

M.S. No.2667 Arbitration lode: Cors. Nos.1,3 and 4 are lost; Cor. No.2 is a pine post, loosely set in a mound of stones, markings illegible.

M.S. No.2667 Monroe Doctrine lode: Cors. Nos.1,2 and 4 could not be found; Cor. No.1 was restored S.56°12"E., 535.0 ft. dist. from Cor. No.2, M.S. No.2667 Greater Republic lode as it was approved; therefore line 1-2 is N.56°12'W., 600 ft.; line 4-1 was established from Cor. No.1, on a straight line to Cor. No.2, M.S. No.2667 Arbitration lode, described above; therefore line 4-1 was found to be S.33°45'52" W., instead of S.33°48' W. as approved; the bearing object for Cor. No.1 could not be found. From Cor. No.1 the Stan. cor. of Tps.1 N., Rs. 13 and 14 E., bears S.14°47'10" E., 775.71 ft., instead of S.14°54' W., 775.0 ft., as approved.

M.S. No.3839 Clare lode: Cor. No.3 is identical with Cor. No.2, M.S. No.2667 Greater Republic lode and Cor. No.1, M.S. No.2666 Greater Republic No.2 lode, described above; Cor. No.4 is identical with Cor. No.2, Greater Republic No.2 lode, described above; the bearing objects for Cor. No.3 could not be found; Line 3-4, is identical with line 1-2, M.S. No.2666 Greater Republic No.2 lode described above.

MEMORANDUM

None

FIELD ASSISTANTS

Gordon McLain	Instrumentman
Steve Axen	Rodman
C.L. Smith	Rodman

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SURVEYOR

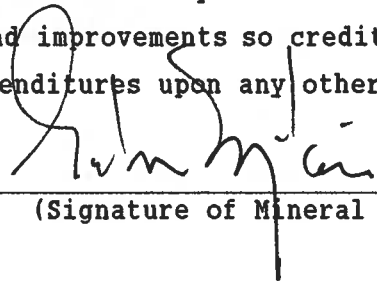
Name of Mineral Surveyor	Date
Gordon W. McLain	March 3, 1994

I HEREBY CERTIFY That in pursuance of an order received from the Arizona State Office, Bureau of Land Management, at Phoenix, Arizona, dated June 17, 1993, I have carefully executed the survey of the claim of Carlota Copper Company, known as the Rejected 9 and Rejected No. 3 lodes, situated in Township 1 South, Range 14 East, and unsurveyed Townships 1 North, Ranges 13 and 14 East, Gila and Salt River Meridian, in the State of Arizona.

This survey, designated as number 4886, has been executed by me and under my direction and has been made in strict conformity with said order, the Manual of Instructions for the Survey of Public Lands of the United States, and in specific manner described in the foregoing field notes.

I FURTHER CERTIFY That the labor expended and improvements made upon and for the benefit of the Rejected 9 and Rejected No. 3 lode locations embraced in the said mining claim by claimants or its grantors are fully stated in my report. The character, extent, location, and itemized value are specified in full detail. 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.

Tucson, Arizona
(Location)


(Signature of Mineral Surveyor)

Title 18, U.S.C. section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

CERTIFICATE OF APPROVAL

Arizona State Office
Phoenix, Arizona
April 5, 1994

The foregoing field notes of mineral survey number 4886, in surveyed section 6, Township 1 South, Range 14 East, and unsurveyed sections 31 and 36, Townships 1 North, Ranges 13 and 14 East, Gila and Salt River Meridian, in the State of Arizona, executed by Gordon W. McLain, Mineral Surveyor, under order dated June 17, 1993, 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.

James P. Kelley

(Authorized Signature)

Chief Cadastral Surveyor of Arizona

(Title)

~~CERTIFICATE OF TRANSCRIPT~~

~~I HEREBY CERTIFY That the foregoing transcript of field notes of the above-described mineral survey number 4886 is a true copy of the original field notes.~~

~~Chief Cadastral Surveyor of Arizona~~

~~(Authorized Signature)~~

~~(Title)~~