

Form 3860-10
(February 1987)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Mineral Survey Number
4895

State
Arizona

Land District
Arizona

FIELD NOTES

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

ASARCO, Incorporated Ray Complex
P. O. Box 8
Hayden, Arizona 85235

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

NAME OF CLAIM(S)

NAME OF LOCATION	DATE			BLM MINING CLAIM SERIAL NUMBER
	LOCATED AND AMENDED	RECORDED WITH COUNTY	RECORDED WITH BLM	
MESCAL No. 10 lode	10-10-57	10-11-57	10-3-79	67064
MESCAL No. 13 lode	10-10-57	10-11-57	10-3-79	67067
MESCAL No. 14 lode	10-9-57	10-11-57	10-3-79	67068

LOCATION OF CLAIM(S)

Mining district Dripping Springs			County Pinal	
Section 7,12,13 & 18	Township 3 South	Range 13 & 14 E.	Meridian G. & S.R.M.	Survey under order dated 12-11-95
Survey commenced 1-9-96		Survey completed 1-16-96	Name of Mineral Surveyor Harvey W. Smith	

Mineral Survey No. 4895

FEET											
	<p>This survey was made with a Nikon Total Station, model A20/LG, S/N 820032, having horizontal and vertical, 78.5 mm. in diam. The distance range with three prisms under normal conditions is 7600 ft., 9200 ft. under good conditions, with an accuracy of $\pm(2+2 \text{ ppm} \times D)\text{mm}$. The solar observation was made with a Swiss Kern theodolite, model DKM 1, No. 77769, having horizontal and vertical circles, 50 mm. in diam. The circles are graduated in degrees and 20-minute increments. An optical micrometer, adjustable to the vertical and horizontal circles, permits the reading of angles direct to ten-second accuracy and estimating to one-second accuracy. The instrument was in good condition at the time of the survey and all adjustments were in good order.</p> <p>All azimuths in this record were determined by the method of horizontal-angles-right referred to the meridian determined by the following observation:</p> <p>January 18, 1996, at Cor. No. 1 of the MESCAL No. 14 lode, identical with Cor. No. 1 of the MESCAL No. 13 lode of the same survey, in latitude $33^{\circ}10'45''\text{N}$. and longitude $110^{\circ}58'03.5''\text{W}$., elevation 3600 ft. above sea level, and temperature 48°F., make a series of six altitude observations on 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 1300 ft. southwest to the sun.</p> <table data-bbox="454 1134 1380 1659"> <tbody> <tr> <td>Mean time of observation, 105th meridian standard time</td> <td>= $9^{\text{h}}50^{\text{m}}45^{\text{s}}\text{a.m.}$</td> </tr> <tr> <td>Declination of sun at mean time of observation</td> <td>= $^{\circ}20'35'07.7''\text{S}$.</td> </tr> <tr> <td>Mean observed vertical angle to sun's center</td> <td>= $23^{\circ}39'$</td> </tr> <tr> <td>Mean horizontal angle from reference point clockwise to sun's center</td> <td>= $307^{\circ}18'40''$</td> </tr> <tr> <td>True bearing to reference point</td> <td>= $\text{S.}10^{\circ}49'30''\text{W}$.</td> </tr> </tbody> </table> <p>The lines were measured with the Nikon Total Station, the accuracy specifications of which are noted above. The instrument was checked for accuracy prior to the survey by comparison to the measured distances of the Phoenix Calibration Base Line, a U.S. Department of Commerce-NOAA-NOS-National Geodetic Survey line with Adjusted Distances as of February 14, 1990.</p>	Mean time of observation, 105th meridian standard time	= $9^{\text{h}}50^{\text{m}}45^{\text{s}}\text{a.m.}$	Declination of sun at mean time of observation	= $^{\circ}20'35'07.7''\text{S}$.	Mean observed vertical angle to sun's center	= $23^{\circ}39'$	Mean horizontal angle from reference point clockwise to sun's center	= $307^{\circ}18'40''$	True bearing to reference point	= $\text{S.}10^{\circ}49'30''\text{W}$.
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True bearing to reference point	= $\text{S.}10^{\circ}49'30''\text{W}$.										

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FEET	
	<p>All lines and connections of this survey were run by direct methods.</p> <p>The magnetic declination observed at each corner of the survey gave a uniform value of 14°E.</p> <hr/> <p style="text-align: center;">Mineral Survey No. 4895</p> <hr/> <p style="text-align: center;">MESCAL NO. 14 LODE</p> <p>At Cor. No. 1 of the MESCAL No. 14 lode, identical with Cor. No. 1 of the MESCAL No. 13 lode of this survey, on line 3-4, M.S. No. 4581 Consolation #2 lode.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X M.14 1 M.13 1 U.S.M.S. 4895; from which</p> <p style="padding-left: 40px;">The sec. cor. of Secs. 7, 12, 13 & 18, Tps.3 S., Rs.13 & 14 E., G.& S.R.M., bears S.67°15'04"E., 1,331.38 ft. dist., monumented with an iron post, 2 in. diam., 12 ins. above ground, firmly set, with a brass cap properly mkd.</p> <p style="padding-left: 40px;">A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence N.0°30'30"E.</p>
35.75	Cor. No. 3, M.S. No. 4581 Consolation #2 lode, identical with Cor. No. 4 of the Sunset #(1) lode of the same survey.
300.00	Lode line; discovery point bears S.89°29'30"E., 1,399.50 ft. dist.
599.50	<p>Cor. No. 2.</p> <p>The point for this cor. falls on a large limestone outcrop, west facing, 10 ft. long, 7 ft. high. At the true point I mark X M.14-2 U.S.M.S. 4895; from which</p> <p style="padding-left: 40px;">A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the outcrop.</p> <p style="padding-left: 40px;">Cor. No. 3, M.S. No. 4581 Sunset #(1) lode bears N.4°54'42"E., 36.65 ft. dist.</p> <p>No other local bearing objects or bearing trees available.</p>

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FEET	
	Thence S.89°29'30"E.
2.64	Intersect line 3-4, M.S. No. 4581 Sunset #(1) lode at a point from which Cor. No. 3 bears N.0°46'37"E., 36.54 ft. dist.
1,499.50	Cor. No. 3. Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X M.14 3 U.S.M.S. 4895; from which A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post. No local bearing objects or bearing trees available.
	Thence S.0°30'30"W.
299.50	Lode line; discovery point bears N.89°29'30"W., 100.00 ft. dist.
599.50	Cor. No. 4, identical with Cor. No. 2 of the MESCAL No. 13 lode of this survey. Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X M.14 4 M.13.2 U.S.M.S. 4895; from which A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post. No local bearing objects or bearing trees available.
	Thence N.89°29'30"W.
1,499.50	Cor. No. 1, and place of beginning.
<hr/> MESCAL NO. 13 LODGE	
	Beginning at Cor. No. 1 of the MESCAL No. 13 lode, identical with Cor. No. 1 of the MESCAL No. 14 lode of this survey.
	Thence S.89°29'30"E.
1,499.50	Cor. No. 2, identical with Cor. No. 4 of the MESCAL No. 14 lode of this survey.
	Thence S.0°30'30"W.
299.50	Lode line; discovery point bears N.89°29'30"W., 100.00 ft. dist.

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FEET	
499.17	Intersect the line between Secs. 7 & 18, T.3 S., R.14 E., at a point from which the sec. cor. of Secs. 7, 12, 13 & 18, Tps.3 S., Rs.13 & 14 E., bears S.89°29'20"W., 267.22 ft. dist., hereinbefore described.
599.50	<p>Cor. No. 3, identical with Cor. No. 2 of the MESCAL No. 10 lode of this survey.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X M.13 3 M.10 2 U.S.M.S. 4895; from which</p> <p style="padding-left: 40px;">A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No other local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence N.89°29'30"W.</p>
1,340.5	Center of unimproved dirt road, 14. ft. wide, bears N.10°W. and S.10°E.
1,499.50	<p>Cor. No. 4, identical with Cor. No. 1 of the MESCAL No. 10 lode of this survey, on line 2-3, M.S. No. 4581 Consolation No. 1 lode.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X M.13 4 M.10 1 U.S.M.S. 4895; from which</p> <p style="padding-left: 40px;">The sec. cor. of Secs. 7, 12, 13 & 18, Tps.3 S., Rs.13 & 14 E., bears N.86°04'24"E., 1,236.03 ft. dist., hereinbefore desc.</p> <p style="padding-left: 40px;">A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence N.0°30'30"E.</p>
35.38	Cor. No. 2, M.S. No. 4581 Consolation No. 1 lode, identical with Cor. No. 4 of the Consolation #2 lode of the same survey.
87.00	Intersect the line between Secs. 12 & 13, T.3 S., R.13 E., at a point from which the sec. cor. of Secs. 7, 12, 13 & 18, Tps.3 S., Rs.13 & 14 E., bears S.89°53'26"E., 1,232.36 ft. dist., hereinbefore described.
300.00	Lode line; discovery point bears S.89°29'30"E., 1,399.50 ft. dist.

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FEET	
599.50	Cor. No. 1, and place of beginning.
MESCAL No. 10 LODE	
Beginning at Cor. No. 1 of the MESCAL No. 10 lode, identical with Cor. No. 4 of the MESCAL No. 13 lode of this survey.	
Thence S.89°29'30"E.	
159.	Center of unimproved dirt road, 14. ft. wide, bears N.10°W. and S.10°E.
1,499.50	Cor. No. 2, identical with Cor. No. 3 of the MESCAL No. 13 lode of this survey.
Thence S.0°30'30"W.	
299.50	Lode line; discovery point bears N.89°29'30"W., 100.00 ft. dist.
599.50	<p>Cor. No. 3.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X M.10 3 U.S.M.S. 4895; from which</p> <p style="padding-left: 40px;">A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No other local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence N.89°29'30"W.</p>
1,372.69	Intersect line 2-3, M.S. No. 4640 Copper Ace No. 4 lode, at a point from which Cor. No. 2 bears N.1°39'58"E., 56.49 ft. dist.
1,457.	Center of unimproved dirt road, 14. ft. wide, bears N.87°E. and S.73°W.
1,499.50	<p>Point for Cor. No. 4.</p> <p>This cor. falls in a road cut where a permanent monument cannot be established.</p> <p style="padding-left: 40px;">From this point, Cor. No. 2, M.S. No. 4640 Copper Ace No. 4 lode bears N.66°41'36"E., 139.87 ft. dist.</p> <p style="text-align: center;">Thence N.0°30'30"E.</p>
10.00	Witness cor. for Cor. No. 4

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FEET	
	Set an iron post, 30 ins. long, 3/4 in. diam., 18 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X W.C. M.10 4 U.S.M.S. 4895; from which
	A wood post, 2 x 2 ins. in size, 4 ft. above ground, sets adjacent to the iron post.
	No other local bearing objects or bearing trees available.
35.00	Cor. No. 3, M.S. No. 4581 Consolation No. 1 lode.
58.98	Intersect line 1-2, M.S. No. 4640 Copper Ace No. 4 lode lode at a point from which Cor. No. 2 bears S.88°22'30"E., 127.98 ft. dist.
300.00	Lode line; discovery point bears S.89°29'30"E., 1,399.50 ft. dist.
599.50	Cor. No. 1, and place of beginning.
Mineral Survey No. 4895	
AREAS	
	Acres
Total area, MESCAL No. 14 lode -----	20.637
Area in conflict with:	
M.S. No. 4581 Sunset #(1) lode -----	0.017
Total area, MESCAL No. 13 lode -----	20.637
Total area, MESCAL No. 10 lode -----	20.637
Area in conflict with:	
M.S. No. 4640 Copper Ace No. 4 lode -----	0.169
LOCATION	
This survey is located in the SW $\frac{1}{4}$ Sec. 7, NW $\frac{1}{4}$ Sec. 18, T.3 S., R.14 E., G.& S.R.M., and SE $\frac{1}{4}$ Sec. 12, NE $\frac{1}{4}$ Sec. 13, T.3 S., R.13 E., G.& S.R.M.	
The survey of the MESCAL Nos. 10, 13 and 14 lodes is identical with the locations as marked on the ground.	
EXPENDITURES	
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:	

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FEET					
No. 1	<p>The discovery point of the MESCAL No. 14 lode is on the lode line, 100. ft. from a point on line 3-4, 299.50 ft. from Cor. No. 3, a post and notice. Value, None.</p>				
No. 1	<p>The discovery point of the MESCAL No. 13 lode is on the lode line, 100. ft. from a point on line 2-3, 299.50 ft. from Cor. No. 2, a post and notice. Value, None.</p>				
No. 1	<p>The discovery point of the MESCAL No. 10 lode is on the lode line, 100. ft. from a point on line 2-3, 299.50 ft. from Cor. No. 2, a post and notice. Value, None.</p>				
	<p>An interest in a common improvement described as follows: A diamond drill hole, No. D796, bears N.62°30'E., 255 ft. from Cor. No. 4 of the MESCAL No. 13 lode; NX in size, 372 ft. deep.</p>				
	<table> <tr> <td>Value of drill hole</td> <td>\$ 3,720.00</td> </tr> <tr> <td>Value of one-third interest</td> <td>1,240.00</td> </tr> </table>	Value of drill hole	\$ 3,720.00	Value of one-third interest	1,240.00
Value of drill hole	\$ 3,720.00				
Value of one-third interest	1,240.00				
	<p>An unimproved road that provides access to the drill site and will be extended to permit further exploration on all three lodes of this survey.</p>				
	<table> <tr> <td>Value of access road</td> <td>\$10,000.00</td> </tr> <tr> <td>Value of one-third interest</td> <td>3,333.33</td> </tr> </table>	Value of access road	\$10,000.00	Value of one-third interest	3,333.33
Value of access road	\$10,000.00				
Value of one-third interest	3,333.33				
	<p>This improvement is for the development of the copper ore reserves and is a continuing program. While there are outcrops, drilling and the recovery of cuttings and core is the only method for determining the extent of the copper ore. As there are no existing roads to provide access to drill sites, new roads must be constructed. Thus, new access roads and drilling afford the most practical and economical means of developing the ore on each of the stated lodes.</p>				
	<p>Five hundred dollars or more has been expended on this improvement in such a manner as tends to the development of each lode of this survey subsequent to its location and to the time since which common ownership and contiguity have prevailed; therefore, an undivided one-third interest in its value is hereby credited to each of said lodes.</p>				
	<p>No portion of or interest in this improvement has been credited heretofore as patent expenditure to any lode claim.</p>				

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FEET

OTHER CORNER DESCRIPTIONS
and SUPPLEMENTAL DATA

M.S. No. 4581, Consolation No. 1 lode: Cor Nos. 2 & 3 are monumented with iron posts, firmly set with a brass cap properly marked and witnessed as described in the official record. Cor. No. 2 is identical with Cor. No. 4 of the Consolation #2 lode of the same survey. Line 2-3 was found to be S.0°30'30"W., 599.88 ft. instead of S.0°31'W., 600.00 ft. as approved.

M.S. No. 4581, Consolation No. 2 lode: Cor. No. 3, identical with Cor. No. 4 of the Sunset #(1) lode of the same survey is monumented with an iron post, firmly set with a brass cap properly marked and witnessed as described in the official record. Cor. No. 4, described above. Line 3-4 was found to be S.0°30'30"W., 599.87 ft. instead of S.0°31'W., 600.00 ft. as approved.

M.S. No. 4581, Sunset #(1) lode: Cor. No. 3 is monumented with an iron post, firmly set with a brass cap properly marked and witnessed as described in the official record. Cor. No. 4, described above. Line 3-4 was found to be S.0°46'37"W., 600.30 ft. instead of S.0°46'W., 600.00 ft. as approved.

M.S. No. 4640, Copper Ace No. 4 lode: Cors. Nos. 1 and 2 and the witness cor. for Cor. No. 3 are monumented with iron posts, firmly set with brass caps properly marked as described in the official record. Line 1-2 and line 2-3 were found to be correct as approved.

The sec. cor. of Secs. 7, 12, 13 & 18, T.3 S., Rs.13 & 14 E., G.& S.R.M., described above.

The $\frac{1}{4}$ sec. cors. of Secs. 12 & 13, T.3 S., R.13 E. and Secs. 7 & 18, T.3 S., R.14 E., are monumented with iron posts, firmly set with brass caps properly marked as described in the official record. The line between the $\frac{1}{4}$ sec. cor. of Secs. 12 & 13 and the sec. cor. of Secs. 7, 12, 13 & 18 was found to be S.89°53'26"E., 2,638.34 ft. instead of S.89°56'E., 2,640.66 ft. as approved. The line between the sec. cor. of Secs. 7, 12, 13 & 18, and the $\frac{1}{4}$ sec. cor. of Secs. 7 & 18 was found to be N.89°29'20"E., 2,486.67 ft. instead of N.89°39'E., 2,482.92 ft. as approved.

MEMORANDUM

None

Mineral Survey No. 4895

FEET	FIELD ASSISTANTS	
	Name	Capacity
	Kent Miller	Assistant Instrumentman
	Gary Shew	Rodman-Chainman

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SURVEYOR

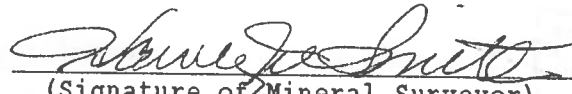
Name of Mineral Surveyor	Date
Harvey W. Smith	4/2/96

I HEREBY CERTIFY That in pursuance of an order received from the Arizona State Office, Bureau of Land Management, at Phoenix, Arizona, dated December 11, 1995, I have carefully executed the survey of the claim of ASARCO, Incorporated, known as the Mescal No. 10, Mescal No. 13 and Mescal No. 14 lodes, situated in sections 7, 12, 13 and 18, Townships 3 South, Ranges 13 and 14 East, Gila and Salt River Meridian, in the State of Arizona.

This survey, designated as number 4895, 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 Mescal No. 10, Mescal No. 13 and Mescal No. 14 lode location 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.

Scottsdale, 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 10, 1996

The foregoing field notes of mineral survey number 4895, in surveyed sections 7, 12, 13 and 18, Townships 3 South, Ranges 13 and 14 East, Gila and Salt River Meridian, in the State of Arizona, executed by Harvey W. Smith, Mineral Surveyor, under order dated December 11, 1995, and 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.

Jonny H. Tolbot

(Authorized Signature)

Acting 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 4895 is a true copy of the original field notes.~~

~~_____
(Authorized Signature)~~

~~Acting Chief Cadastral Surveyor of Arizona
(Title)~~