

Form 3860-10
(February 1987)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Mineral Survey Number
4880

State
Arizona

Land District
Arizona

FIELD NOTES

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

Harborlite Corporation
P. O. Box 100
Vicksburg, MI 49097

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	
HARBORLITE MILLSITE NO. 3A Amended	10-29-91	10-31-91	1-20-91	A MC 317479
	1-16-92	1-16-92	1-29-92	

LOCATION OF CLAIM(S)

Mining district Pioneer		County Pinal		
Section 4	Township 2 South	Range 12 East	Meridian G. & S.R.M.	Survey under order dated 2-20-92
Survey commenced 2-20-92		Survey completed 11-3-93	Name of Mineral Surveyor Harvey W. Smith	

Mineral Survey No. 4880

FEET											
	<p>This survey 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>November 2, 1993, at Cor. No. 2 of the HARBORLITE MILLSITE NO. 3A, in latitude $33^{\circ}17'07.4''N$. and longitude $111^{\circ}07'30.8''W$., elevation 2,710 ft. above sea level, and temperature $60^{\circ}F$., 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 right from a reference point about 1,000 ft. Northeast to the sun.</p> <table data-bbox="470 976 1364 1491"> <tbody> <tr> <td>Mean time of observation, 105th meridian standard time</td> <td>= $8^h28^m40^s$ a.m.</td> </tr> <tr> <td>Declination of sun at mean time of observation</td> <td>= $15^{\circ}11'38.7''S$.</td> </tr> <tr> <td>Mean observed vertical angle to sun's center</td> <td>= $18^{\circ}28'32''$</td> </tr> <tr> <td>Mean horizontal angle from reference point clockwise to sun's center</td> <td>= $116^{\circ}54'27''$</td> </tr> <tr> <td>True bearing to reference point</td> <td>= $N.6^{\circ}24'43''E$.</td> </tr> </tbody> </table> <p>The lines were measured with a lufkin steel tape, 300 ft. in length, graduated every foot for 299 ft. and the remaining foot graduated to tenths and hundredths; the tape was compared to an Invar standard tape at the beginning of the survey and found to be correct. In addition to the steel tape, a Nikon ND-21 infrared distance measuring unit was used to measure some of the lines. Its accuracy was checked against a line measured with the foregoing steel tape and found to be correct.</p> <p>All lines and connections of this survey were run by direct methods.</p>	Mean time of observation, 105th meridian standard time	= $8^h28^m40^s$ a.m.	Declination of sun at mean time of observation	= $15^{\circ}11'38.7''S$.	Mean observed vertical angle to sun's center	= $18^{\circ}28'32''$	Mean horizontal angle from reference point clockwise to sun's center	= $116^{\circ}54'27''$	True bearing to reference point	= $N.6^{\circ}24'43''E$.
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FEET	
	<p>The magnetic declination observed at each corner of the survey gave a uniform value of $12\frac{1}{2}^{\circ}$ E.</p>
	<p>Mineral Survey No. 4880</p>
	<p>HARBORLITE MILLSITE NO. 3A</p>
	<p>At Cor. No. 1 of the HARBORLITE MILLSITE NO. 3A, on line 3-4, M.S. No. 4860, Harborlite Millsite No. 1A.</p>
	<p>Set an iron post, 30 ins. long, $\frac{3}{4}$ 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 H.M.3A 1 U.S.M.S. 4880; from which</p>
	<p>The S. $\frac{1}{4}$ sec. cor. of sec. 34, T.1 S., R.12 E., G.& S.R.M., bears $N.45^{\circ}38'29''$ E., 2,431.06 ft. dist., monumented with an iron post, 1 in. diam., 12 ins. above ground, firmly set, with a brass cap properly mkd.</p>
	<p>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>Thence $S.10^{\circ}03'57''$ E.</p>
240.00	<p>Cor. No. 3, M.S. No. 4860 Harborlite Millsite No. 1A, identical with Cor. No. 4, M.S. No. 4860 Harborlite Millsite No. 2A.</p>
280.	<p>Power line bears $S.66^{\circ}45'W.$ and $N.66^{\circ}45''E.$</p>
570.00	<p>Cor. No. 3, M.S. No. 4860 Harborlite Millsite No. 2A.</p>
660.00	<p>Cor. No. 2.</p>
	<p>Set an iron post, 30 ins. long, $\frac{3}{4}$ 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 H.M.3A 2 U.S.M.S. 4880; from which</p>
	<p>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>Thence $S.79^{\circ}56'03''W.$</p>
330.00	<p>Cor. No. 3.</p>

Mineral Survey No. 4880

FEET					
	<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 H.M.3A 3 U.S.M.S. 4880; 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 local bearing objects or bearing trees available.</p> <p style="padding-left: 40px;">Thence N.10°03'57"W.</p>				
298.	Power line bears S.66°45'W. and N.66°45'E.				
660.00	Cor. No. 4.				
	<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 H.M.3A. 4 U.S.M.S. 4880; 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 local bearing objects or bearing trees available.</p> <p style="padding-left: 40px;">Thence N.79°56'03"E.</p>				
330.00	Cor. No. 1, and place of beginning.				
	The HARBORLITE MILLSITE NO. 3A contains 5.000 acres.				
<hr/> Mineral Survey No. 4880 <hr/>					
<table border="0"> <thead> <tr> <th style="text-align: left;">AREAS</th> <th style="text-align: right;">Acres</th> </tr> </thead> <tbody> <tr> <td>Total area, HARBORLITE MILLSITE NO. 3A -----</td> <td style="text-align: right;">5.000</td> </tr> </tbody> </table>		AREAS	Acres	Total area, HARBORLITE MILLSITE NO. 3A -----	5.000
AREAS	Acres				
Total area, HARBORLITE MILLSITE NO. 3A -----	5.000				
LOCATION <p>This survey is located in the NW$\frac{1}{4}$ sec. 4, T.2 S., R.12 E., G.& S.R.M.</p> <p>The survey of the HARBORLITE MILLSITE NO. 3A is identical with the location as marked on the ground.</p>					

Mineral Survey No. 4880

FEET	<p>EXPENDITURES</p> <p>None</p> <p>OTHER CORNER DESCRIPTIONS and SUPPLEMENTAL DATA</p> <p>M.S. No. 4860, Harborlite Millsite No. 1A: Cor. No. 3, identical with Cor. No. 4 of the Harborlite Millsite No. 2A of the same survey and Cor. No. 4, are iron posts, firmly set with a brass cap, properly marked. Line 3-4 was found to be N.10°03'57"W., 330.00 ft. instead of N.10°01'38"W., 330.00 ft. as approved.</p> <p>M.S. No. 4860, Harborlite Millsite No. 2A: Cor. No. 3 is an iron post, firmly set with a brass cap, properly marked. Cor. No. 4, identical with Cor. No. 3 of the Harborlite Millsite No. 1A of the same survey, described above. Line 3-4 was found to be N.10°03'57"W., 330.00 ft. instead of N.10°01'38"W., 330.00 ft. as approved.</p> <hr/> <p>MEMORANDUM</p> <p>None</p> <hr/> <p>FIELD ASSISTANTS</p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Capacity</th> </tr> </thead> <tbody> <tr> <td>Kent Miller</td> <td>Assistant Instrumentman</td> </tr> <tr> <td>Gary Shew</td> <td>Rodman-Chainman</td> </tr> </tbody> </table>	Name	Capacity	Kent Miller	Assistant Instrumentman	Gary Shew	Rodman-Chainman
Name	Capacity						
Kent Miller	Assistant Instrumentman						
Gary Shew	Rodman-Chainman						

UNITED STATES
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BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SURVEYOR

Name of Mineral Surveyor

Harvey W. Smith

Date

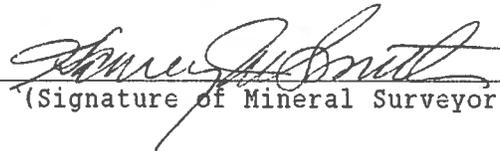
January 7, 1994

I HEREBY CERTIFY That in pursuance of an order received from the Arizona State Office, Bureau of Land Management, at Phoenix, Arizona, dated February 20, 1992, I have carefully executed the survey of the claim of Harborlite Corporation, known as the Harborlite Millsite No. 3A, situated in Township 2 South, Range 12 East, Gila and Salt River Meridian, in the State of Arizona.

This survey, designated as number 4880, 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 Harborlite Millsite No. 3A 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
February 28, 1994

The foregoing field notes of mineral survey number 4880, in surveyed section 4, Township 2 South, Range 12 East, Gila and Salt River Meridian, in the State of Arizona, executed by Harvey W. Smith, Mineral Surveyor, under order dated February 20, 1992, 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.

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 4880 is a true copy of the original field notes.~~

~~Chief Cadastral Surveyor of Arizona~~

~~(Authorized Signature)~~

~~(Title)~~