

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ORIGINAL

FIELD NOTES

OF THE

DEPENDENT RESURVEY AND ACCRETION SURVEY,

TOWNSHIP 16 SOUTH, RANGE 21 EAST

Of the San Bernardino Meridian,

In the State of Arizona

EXECUTED BY

Paul G. Bauer, Surveying Technician

Robert C. Yundt, Cadastral Surveyor

*Under special instructions dated Nov. 11, 1959 & Sept. 15, 1960, which provided
for the surveys included under Group No. 347 & 355, approved November 17, 1959 &
September 22, 1960
and assignment instructions dated Nov. 20, 1959 & Sept. 26, 1960*

Survey commenced December 6, 1959

Survey completed March 17, 1961

1A

BOOK 4590

INDEX DIAGRAM

Township 16 SOUTH, Range 21 EAST

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Hand-drawn lines on the right side of the diagram indicate section boundaries. A vertical line is drawn between sections 25 and 26. A curved line starts at the bottom of section 25, goes up and left, then down and left, crossing sections 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. The numbers 5, 5, and 4 are written to the right of the diagram, corresponding to the rows containing sections 24-25, 25-26, and 35-36 respectively.

16-56770-1

Township 16 South, Range 21 East, San Bernardino Meridian, Arizona

Chains

The original survey of the south and east boundaries of Township 16 South, Range 21 East, San Bernardino Meridian, Arizona was executed by H. Poole in 1855 and the fractional township was subdivided by J. LaCroze in 1856. The following field notes are those of a dependent resurvey of portions of the south and east boundaries, subdivision adjacent to sections 24, 25, 35, and 36, on the south side of the Colorado River, an extension survey to the present left bank of the river, with the segregation of accretion land attached to lot No. 3 in section 36, and a meander of the left bank of the river in sections 24, 25, 35, and 36.

The dependent resurvey is a restoration of the lines of the original survey in their true original positions according to the identified evidence of that survey. Before remonumenting an original corner position, or restoring a lost corner, the lines of the original survey were retraced and search made for the original corner monuments and other calls of the field notes, and for collateral evidence of later date. After completing the necessary retracements and searches, the rules of proportionate measurement were applied, or record positions used in those cases where no opposite corner was found, in order to ascertain the position of each lost corner, and when duly identified or restored the corner positions were monumented with iron posts. In order to simplify the record only the true line notes referring to the completed resurvey are supplied here.

The geographic position of the corner of T. 16 S., Rs. 21 and 22 E., determined from the data contained on the quadrangle sheet of the U. S. Geological Survey is as follows: Latitude 32° 43' 12" N. and longitude 114° 42' 12" W. The mean magnetic declination was found to be 15° East.

The resurvey was executed with W. & L. E. Gurley solar transit No. 541331, the property of the Bureau of Land Management and constructed in accordance with their standard specifications. The direction of the lines of the resurvey were determined by reference to altitude observations on the sun or hour angle observations on Polaris, made on line during the field work. The lines were carried forward as transit lines and checked by succeeding observations. The measurements were made with Chicago steel ribbon tapes, eight chains in length. These tapes were graduated every link for the first chain and thereafter at intervals of ten links. The tapes were tested by comparison with a Lufkin steel standard tape, one chain in length and found to be correct. The measurements were made on the slope, the vertical angle of each interval determined by the use of clinometers, and the slope distances properly reduced to horizontal equivalents for use in these notes.

Dependent Resurvey of Portion of South Boundary, T. 16 S., R. 21 E.

Reestablishment of the Surveys Executed by H. Poole in 1855

Beginning at the remonumented corner of Township 16 South, Ranges 21 and 22 East, marked by an iron post, 2 1/2 ins. in diameter, firmly set, properly marked and witnessed as described in the field notes of the dependent resurvey of T. 16 S., R. 22 E., concurrently executed.

Thence:

S. 86° 02' W. on dependent resurvey along the south boundary of section 36.

Over cultivated land.

.34 Center of bend in canal, 25 lks. wide, 4 ft. deep, drains west from north.

9.00 Canal bears east and south about 30 lks. thence west. Lane bears west and south.

Dependent Resurvey of a Portion of South Boundary of T. 16 S., R. 21 E.

Chains

10.31

The closing corner of sections 22 and 23, T. 8 S., R. 24 W., marked by a U. S. Bureau of Reclamation iron post, 2 ins. in diameter, 8 ins. under the surface, with brass cap marked:

T16SR21E

S36

S22 | S23

CC

T8S R24W

1951

This corner is accepted as the best available evidence of the original position.

40.07

The $\frac{1}{4}$ corner of section 36, marked by a U. S. Bureau of Reclamation brass tablet set in concrete, 24 ins. under the surface, with the brass cap marked:

 $\frac{1}{4}$ S 36

1951

This point is accepted as the best available evidence of the original corner. I remove this post and at the same place,

Set an iron post, 30 ins. long, 2 $\frac{1}{2}$ ins. in diameter, 56 ins. in the ground and in concrete, with the brass cap marked:

T16SR21E

 $\frac{1}{4}$ S 36

1961

Set a redwood post, 7 ft. long and 4 ins. square on top of the iron post. Below the post

From which as references:

The southeast corner of power plant woven-wire fence, bears N. 01° 35' E., 3.805 chains distant.

A cross (+) cut on concrete top of drop inlet, bears S. 86° 35' W., 1.27 chains distant.

S. 86° 02' W., beginning new measurement.

9.86

Power line, bears north and south.

10.41

The $\frac{1}{4}$ section corner of section 22, T. 8 S., R. 24 W., is marked by $\frac{1}{2}$ inch iron rod, 4 ins. below the surface of the oiled road, bearing north and south. This point is used as the corner by the owners of adjacent lands. It is accepted as the best available evidence of the original position of the corner and at the same place.

Set a copper weld survey marker in concrete, top flush with the surface of the oiled road, with brass cap marked:

 $\frac{1}{2}$ S22

T8SR24W

1961

34.73

Dirt road, bears north and south.

36.32

Center of Southern Pacific Railroad track, on levee

36.58

Center of new Yuma Levee, bears N. 36° E., by S. 36° W.

Dependent Resurvey of Portion of South Boundary of T. 16 S., R. 21 E.

Chains
40.06

The corner of sections 35 and 36 is marked by a U. S. Bureau of Reclamation brass tablet, set in concrete, flush with the ground, with brass cap marked:

TI6SR21W
S35 | S36
S22
T8S R24W
1951

This point is accepted as the best available evidence of the original corner.

Land, level bottom land, cultivated

Soil, deep, sandy clay loam

Timber, none.

Undergrowth, none

S. 85° 35' W., on dependent resurvey of south boundary of section 35

Along south edge of lane, bearing east and west, with cultivated land to the south.

7.50 Fence, bears south and east

7.60 Lane, bears north, south and east.

8.30 Set an iron post, 30 ins. long, 2½ ins. in diameter, 22 ins. in the ground, in concrete, at the witness meander corner of sections 22 and 35, with brass cap marked:

TI6SR21E
WC S35
MC S22
T 8SR24W
1961

From which:

A telephone pole, bears north, 10.5 lks. (7ft.) distant.

Set a redwood post, 4 ins. by 4 ins. by 7 ft. 30 ins. in the ground alongside the iron post.

9.43 Intersect mean high water mark on the present bank of the Colorado River and point for the meander corner of secs. 22 and 35, bearing N. 33° 52' E., S. 21° 33' W. This point falls upon steep bank subject to erosion where the monument cannot be perpetuated.

From which:

Monument 206, on the International Boundary, bears S. 85° 35' W., 18.93 chains distant (across the Colorado River).

Land, level bottom land

Soil, deep, sandy clay loam

Timber, cottonwood, willows, palo fierro, near the river.

Undergrowth, arrow weed, near the river.

Dependent Resurvey of a portion of the East Bdy. of T. 16 S., R. 21 E.

From the corner of T. 16 S., Rs. 21 and 22 E., heretofore described.

Dependent Resurvey of a Portion of the East Boundary of T. 16 S., R. 21 E.

Chains

Thence:

N. 0° 02' W., on dependent resurvey between sections 31 and 36.

Over level land, through cultivated fields, along east slope of canal bank.

8.78

The $\frac{1}{2}$ corner of sections 31 and 36, monumented by a U. S. Bureau of Reclamation brass tablet set in concrete with brass cap marked:

T16S
R21E R22E
 $\frac{1}{2}$
S36 | S31
1951

This point is accepted as the best remaining evidence of the original location. I remove this monument and at the same place,

Set an iron post, 30 ins. long, 2 $\frac{1}{2}$ ins. in diameter, 42 ins. in the ground, on east slope of canal bank, with brass cap marked;

T16S
R21E R22E
 $\frac{1}{2}$
S36 | S31
1961

Set a redwood post, 4 ins. by 4 ins. by 7 ft., 4 ft. in the ground, on top of the brass cap.

Continue on same line, beginning new measurement.

19.83

Irrigation ditch, 20 lks. wide, 3 ft. deep, drains West from East.

34.08

Canal, 20 lks. wide, 3 ft. deep, drains West from East. Leave cultivated area.

34.85

Center of R. R. track, on top of levee.

35.03

Center of New Yuma Levee, bears East and West and marked by a U. S. Bureau of Reclamation brass tablet, set in concrete, 8 ins. below the surface of the levee.

40.08

The corner of sections 25, 30, 31, and 36 is marked by an iron post, 3 ft. long, 3 ins. diameter, set by the U. S. Bureau of Reclamation in 1915 as a remonumentation of the original point. I remove this post and at the same place,

Set an iron post, 30 ins. long, 2 $\frac{1}{2}$ ins. diameter, 25 ins. in the ground at the corner of sections 25, 30, 31, and 36 with brass cap marked:

T16S
R21E R22E
S25 | S30
S36 | S31
1959

Deposit broken glass at the base of the iron post.

Land, level bottom land, cultivated.

Soil, deep, sandy clay loam.

Timber, none.

Undergrowth, arrow weed along canal.

Thence:

Dependent Resurvey of Portion of the East Boundary, T. 16 S., R. 21 E.

Chains

North, on record course, between sections 25 and 30.

Over level land, through cultivated area, along a fenced lane.

4.80 Road, bears N. 80° W. and S. 80° E.

22.00 There is no remaining evidence of the original meander corner of sections 25 and 30 on the left bank of the Colorado River at record distance.

30.02 Fence, bears E. and W.

40.00 Record distance for the $\frac{1}{4}$ corner sections 25 and 30, and record distance for the original meander post on the right bank of the Colorado River in an E-W fence line: There is no remaining evidence of the original corner.Set an iron post, 30 ins. long and 2½ ins. in diameter, 25 ins. in the ground at the restored $\frac{1}{4}$ sec. corner, with brass cap marked:

T16S
R21E | R22E
S25 | S30
1959

Deposit broken glass at the base of the iron post.

40.10 Irrigation ditch, drains W.

73.30 Northern edge of cultivated land, bears E. and W.; descending along a rolling N. slope in dense undergrowth.

80.00 At the corner of sections 19, 24, 25, and 30; at record distance.

Set an iron post, 30 ins. long, 2½ ins. in diameter, 24 ins. in the ground, at the restored corner, with brass cap marked:

T16S
R21E | R22E
S24 | S19
S25 | S30
1959

Deposit broken glass at the base of the iron post.

Land, nearly level bottom land.

Soil, deep, sandy clay loam.

Timber, locust, palo fierro, salt cedar.

Undergrowth, salt cedar, arrow weed, weeds and grass.

North, between sections 19 and 24.

Over level land, through dense undergrowth and timber.

6.60 Intersect mean high water on the present left bank of the Colorado River, bearing N. 70° W. and S. 55° E.

Set an iron post, 30 ins. long, 2½ ins. in diameter, 26 ins. in the ground, at the meander corner of sections 19 and 24; with brass cap marked:

MC
S24 | S19
R21E | R22E
T16S
1959

Dependent Resurvey of Portion of the East Boundary of T. 16 S., R. 21 E.

Chains

Deposit broken glass at the base of the iron post.

From which:

The meander corner of sections 19 and 24, T. 16 S., R. 21 E., San Bernardino Meridian, California, bears N. 61° 51' W. 15.33 chains distant.

Land, level bottom land.

Soil, deep, sandy clay loam.

Timber, palo fierro, salt cedar, locust and willows.

Dependent Resurvey of Subdivision of T. 16 S., R. 21 E.

Reestablishment of the Surveys Executed by J. LaCroze in 1856

Beginning at the corner of sections 35 and 36, on the south boundary

Thence:

North, on record course between sections 35 and 36.

Over level land, through scattered mesquite and arrow weed.

.74 South edge of implement shed, 21 lks. to southeast corner and 27 lks. to southwest corner.

15.00 Record distance; there is no remaining evidence of the original 1/4 section corner.

Set an iron post, 30 ins. long, 2 1/2 ins. in diameter, 40 ins. in the ground at the restored 1/4 section corner of sections 35 and 36, with brass cap marked:

T16S R21E

S35 S36

1961

A redwood post, 7 ft. long and 4 ins. square, 36 ins. in the ground, north of the iron post as a guard post.

Continue on same line with continuous measurement.

17.41 Fence, bears east and west.

22.80 Intersect mean high water on the left bank of the Colorado River, bears S. 04° 02' W. and N. 38° 44' E.

Set an iron post, 30 ins. long, 2 1/2 ins. in diameter, 30 ins. in the ground, in cement at the meander corner of sections 35 and 36 with brass cap marked:

MC T16S

R21E

S36

S35

1961

From which:

A reference mark, of the Boundary Commission, a brass tablet, set in concrete and marked:

T16S
R21E
S36
S35
1961

Dependent Resurvey of Portion of Subdivision of T. 16 S., R. 21 E.

Chains

RPNO
ELEV

FEET
METROS

REFER

BMNO

MEXICO

Bears N. 55° 45' E., 0.53 chains distant.

A bench mark of the U. S. Bureau of Reclamation, marked:

ELEV FT
ABOVE MEAN
SEA LEVEL
BM

Bears N. 29° 18' E., 9.16 chains distant.

A 12 inch pump on the left bank of the Colorado River, bears N. 25° E., 17.31 chains distant.

Set a redwood post, 7 ft. long, and 4 ins. square, 36 ins. in the ground alongside the iron post as a guard stake.

Beginning at the corner of sections 19, 24, 25, and 30 on the E. boundary of the township.

Thence,

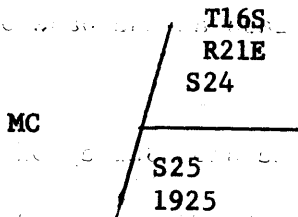
West, between sections 24 and 25.

Over level land, through dense timber and undergrowth.

1.08 Barbed wire fence, bears N. and S.

17.63 Intersect mean high water mark on the left bank of the Colorado River, bearing NE. and SW.

Set an iron post, 30 ins. long and 2½ ins. in diameter, 24 ins. in the ground at the meander corner of sections 24 and 25, with brass cap marked.



Deposit broken glass at the base of the iron post.

Land, level bottom land.

Soil, deep, sandy clay loam.

Timber, mesquite, palo fierro and willows.

Undergrowth, arrow weed, salt cedar, weeds and grass.

Beginning at the corner of sections 25, 30, 31, and 36, on the E. boundary of the township.

Thence:

West, on record course, between sections 25 and 36.

Over level land, through scattered timber and dense undergrowth.

Dependent Resurvey of Portion of Subdivision of T. 16 S., R. 21 E.

Chains
 .27 Fence, bears N. and S.
 29.30 Graded road, bears N. 20° W. and S. 20° E.; enter cultivated area.
 33.96 Gate in fence line, bearing S., and N. 10 lks. to corner of fences bearing W. and S.
 40.17 Record distance; there being no remaining evidence of the original $\frac{1}{4}$ section corner.

Set an iron post, 30 ins. long, $2\frac{1}{2}$ ins. in diameter, 40 ins. in the ground at the restored $\frac{1}{4}$ section corner of sections 25 and 36, with brass cap marked.

T16SR21E
 $\frac{1}{4}$ S25
 S36
 1959

from which

An iron post, 30 ins. long and $2\frac{1}{2}$ ins. in diameter, marked T16SR21E S25 REF 25 lks. 1961, with an arrow pointing to the corner point, set 27 ins. in the ground as a reference point, bears 25 lks. N. 56° 43' 30" W. Deposit broken glass at the base of the iron post.

Continue on same line with continuous measurement.

52.22 Record distance; there is no remaining evidence of the original meander corner of sections 25 and 36, on the left bank of the Colorado River.

Set an iron post, 30 ins. long, $2\frac{1}{2}$ ins. in diameter, 27 ins. in the ground at the restored meander corner of sections 25 and 36 with brass cap marked.

T16SR21E
 S25
 MC
 S36
 1959
 1961

Deposit broken glass at the base of the post.

Extension Survey of Accretion Lands in Sec. 36

An extension survey of accretion lands in the NW. quarter of section 36 is made to segregate that portion attaching to the alienated land of Lot 3, section 36, and those portions inuring to public lands of sections 25 and 36.

Beginning at the record meander corner of sections 25 and 36, hereinbefore described.

N. 58° 06' W., on an extension of the line between sections 25 and 36, crossing accreted land on a course normal to the present left bank of the Colorado River.

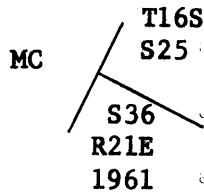
10.30 Enter dense undergrowth, arrow weed and salt cedar.

15.00 Mean high water mark of the present left bank of the river, bearing N. 31° 54' E., and S. 31° 54' W.

Set an iron post, 30 ins. long, $2\frac{1}{2}$ ins. in diameter, 24 ins. in the ground, for meander corner of sections 25 and 36, with brass cap marked.

Extension Survey of Accretion Lands in Section 36

Chains



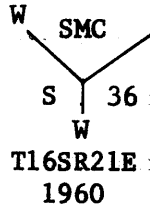
Returning to the meander corner of sections 25 and 36 at record distance.

Thence:

S. 55° 00' W., along the adjust record meander line in section 36; over cultivated land.

9.82 The W. sixteenth section line of section 36 by calculated distance.

Set an iron post, 30 ins. long, 2½ ins. in diameter, 54 ins. in the ground at the special meander corner, with brass cap marked.



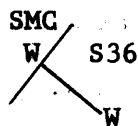
Thence:

N. 58° 06' W., on an extension of the W. sixteenth section line crossing accreted land on a course normal to the present left bank of the Colorado River; through field.

7.00 Enter thick undergrowth, salt cedar and arrow weed.

11.16 Mean high water line of the present left bank of the river, bearing N. 31° 54' E. and S. 31° 54' W.

Set an iron post, 30 ins. long, 2½ ins. in diameter, 24 ins. in the ground, for special meander corner on the W. sixteenth section line of section 36, with brass cap marked.



T16SR21E
1961

Land, nearly level bottom land.

Soil, deep sandy clay loam.

Timber, palo fierro, mesquite and willows.

Undergrowth, arrow weed, salt cedar, weeds and grass.

Meanders of the Left Bank of the Colorado River Downstream in Section 24

Beginning at the meander corner of sections 19 and 24 on the E. boundary of the township, and on the left bank of the Colorado River;

Thence, with meanders of the left bank of the river, downstream in section 24.

Along a cut bank about 5 ft. high, through dense timber and undergrowth.

Meanders of the Left Bank of the Colorado River

Chains N. 71° 28' W., 3.30 chains
 N. 86° 57' W., 5.38 chains
 S. 82° 06' W., 2.46 chains
 S. 63° 45' W., 1.98 chains
 S. 42° 46' W., 2.87 chains
 S. 32° 49' W., 5.46 chains. At the end of this course intersect the meander corner of sections 24 and 25.

Land, level bottom land.
 Soil, sandy clay loam.
 Timber, mesquite, palo fierro, palo verde, and willows.
 Undergrowth, salt cedar, arrow weed, and grass.

Thence:

With meanders in section 25, downstream.

S. 17° 51' W., 15.00 chains.
 S. 64° 33' W., 4.95 chains.
 S. 78° 18' W., 1.98 chains.
 S. 26° 07' W., 4.37 chains.
 S. 55° 31' W., 2.84 chains.
 S. 26° 27' W., 3.49 chains.
 S. 22° 04' W., 7.61 chains.
 S. 03° 51' W., 1.39 chains.
 S. 26° 50' W., 3.62 chains.
 S. 27° 23' W., 19.52 chains.
 S. 52° 32' W., 6.12 chains.
 S. 46° 11' W., 15.28 chains.
 S. 31° 54' W., 5.36 chains. At the end of this course intersect the meander corner of sections 25 and 36.

Land, level bottom land.
 Soil, deep, sandy clay loam.
 Timber, mesquite, palo fierro, palo verde, willows and cottonwood.
 Undergrowth, arrow weed, salt cedar, weeds and grass.

Thence:

With meanders in section 36, downstream.

S. 31° 54' W., 9.08 chains. At the end of this course intersect the special meander corner of section 36.
 S. 31° 54' W., 0.26 chains.
 S. 09° 47' W., 17.12 chains.

Meanders of the Left Bank of the Colorado River

Chains

S. 21° 10' W., 13.08 chains.

S. 38° 44' W., 3.23 chains. At the end of this course intersect the meander corner of sections 35 and 36.

Land, level bottom land.

Soil, deep, sandy clay loam.

Timber, mesquite, palo fierro, palo verde, willows, and cottonwood.

Undergrowth, arrow weed, salt cedar, weeds and grass.

Thence:

With meanders in section 35, downstream.

S. 04° 02' W., 8.50 chains.

S. 07° 27' W., 2.42 chains.

S. 33° 52' W., 15.23 chains. At the end of this course intersect the true point for meander corner section 35 on the S. boundary of the township, and from which the witness meander corner bears N. 85° 35' E., 1.13 chains distant

Land, level bottom land.

Soil, deep, sandy clay loam.

Timber, mesquite, palo fierro, palo verde, willows and cottonwood.

Undergrowth, arrow weed, salt cedar, weeds and grass.

GENERAL DESCRIPTION

The land covered by the resurvey is located in the bottom land along the left bank of the Colorado River. It is nearly flat and covered with a dense growth of timber and undergrowth. Along the eastern part of the area the undergrowth has been cleared and the lands cultivated. The timber consists of palo fierro, palo verde, willows, and cottonwood. It is of no commercial value. The undergrowth is largely salt cedar and arrow weed, with lesser amounts of weeds and grass. The elevation of the township about 120 ft. above sea level.

BOOK 4590

4-680
(Feb., 1950)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

NAMES	CAPACITY
Clarence N. Carleton	Chainman
Jerrold E. Knight	Chainman
Jerrold Thompson	Chainman
Theodore L. Thayer	Chainman
James R. Munson	Chainman
Anthony W. Coombs	Flagman
Gerald Stock	Flagman
Max Asay	Cornerman

CERTIFICATE OF CADASTRAL ENGINEER

I, We, Paul G. Bauer and Robert C. Yundt, HEREBY CERTIFY upon honor that, in 15th September 1960 and 11th November 1959,
pursuance of special instructions bearing date of the _____ day of _____, _____, _____,

We ~~have surveyed~~ independently resurveyed and surveyed portions of the east and south
boundaries and subdivision of Township 16 South, Range 21 East

of the San Bernardino Meridian, in the State of Arizona, which are
represented in the foregoing field notes as having been executed by ~~me~~ ^{us} and under ~~my~~ ^{our} direction; and that
said survey has been made in strict conformity with said instructions, 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.

April 20, 1961
April 20, 1961

Paul G. Bauer
Paul G. Bauer, Surveying Technician
Robert D. Yundt
Robert D. Yundt, Cadastral Surveyor

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT,
Washington, D. C., JUL 20 1961, 19____

The foregoing field notes of the ~~XXXXXX~~ independent resurvey and survey in Township 16
South, Range 21 East of the San Bernardino Meridian, Arizona

executed by Paul G. Bauer and Robert C. Yundt
having been critically examined and found correct, are hereby approved.

(Sgd.) Donald B. Clement
Donald B. Clement
Cadastral Engineering Staff Officer.

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of the field notes of the above-described surveys in _____
_____, is a true copy of the original field notes.

Cadastral Engineering Staff Officer.