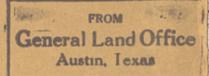
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SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1925

No. 13, Original



THE STATE OF OKLAHOMA, COMPLAINANT,

28.

THE STATE OF TEXAS, DEFENDANT, THE UNITED STATES, INTERVENER.

THIRD REPORT OF THE BOUNDARY COMMISSIONERS

ARTHUR D. KIDDER, ARTHUR A. STILES, Commissioners.

Washington, D. C., November 16, 1925.

General Land Office Austin, Jexas

SUPREME COURT OF THE UNITED STATES.

October Term, 1925.

No. 13, Original.

THE STATE OF OKLAHOMA, Complainant,

vs.

THE STATE OF TEXAS, Defendant, THE UNITED STATES, Intervener.

THIRD REPORT OF THE BOUNDARY COMMISSIONERS.

To the Chief Justice and the Associate Justices of the Supreme Court of the United States:

In further continuation of our work as commissioners designated in the decree of March 12, 1923 (261 U. S., 340) in the above entitled cause, we have run, located and marked upon the ground the boundary line between the States of Texas and Oklahoma along the Red River in accordance with section (c) of paragraph 12 of the decree and the principles announced in the opinion delivered January 15, 1923 (260 U. S., 606) in the following seven areas:

- (1) McFarland Island in Wichita County, Texas opposite Cotton County, Oklahoma.
- (2) Ayers Island in Hardeman and Wilbarger Counties, Texas opposite Jackson County, Oklahoma.
- (3) Fish Creek Area in Cooke County, Texas opposite Love County, Oklahoma.
- (4) Murphy Creek Area in Fannin County, Texas opposite Bryan County, Oklahoma.
- (5) Popes Point in Fannin County, Texas opposite Bryan County, Oklahoma.

(6) Grubbs Lake Area
in
Fannin County, Texas
opposite
Bryan County, Oklahoma.

(7) Pitts Bend in Lamar County, Texas and Allen Island in Choctaw County, Oklahoma.

We have examined four other areas where the boundary was in doubt, but have disposed of them without surveys. They are:

(8) M. J. Moore Survey
at
Mouth of Pease River
in
Wilbarger County, Texas
opposite
Tillman County, Oklahoma.

(9) Gainesville Toll Bridge over Red River in Cooke County, Texas opposite Love County, Oklahoma.

(10) Golden Bluff
in
Lamar County, Texas
opposite
Choctaw County, Oklahoma.

(11) Slate Shoals Bend in Lamar County, Texas opposite Choctaw County, Oklahoma.

We have considered another area, alleged to be avulsive, but admittedly very old, about which the facts were not satisfactorily established. We have disposed of it without field examination or survey. It is:

(12) Blum Lake
in
Fannin County, Texas
opposite
Bryan County, Oklahoma.

The cadastral maps of the Texas and Oklahoma boundary in the seven areas surveyed, which accompany and are made part of this report, are identified as follows:

- Map No. 6. McFarland Island
 Wichita County, Texas.
 Scale: 2000 feet to the inch.
- Map No. 7. Ayers Island
 Hardeman and Wilbarger Counties, Texas.
 Scale: 2000 feet to the inch.
- Map No. 8. Fish Creek Area
 Cooke County, Texas,
 Love County, Oklahoma.
 Scale: 2000 feet to the inch.
- Map No. 9. Murphy Creek Area Fannin County, Texas, Bryan County, Oklahoma. Scale: 2000 feet to the inch.
- Map No. 10. Popes Point Fannin County, Texas. Scale: 2000 feet to the inch.
- Map No. 11. Grubbs Lake Area Fannin County, Texas. Scale: 2000 feet to the inch.
- Map No. 12. Pitts Bend and Allen Island Lamar County, Texas, Choctaw County, Oklahoma. Scale: 2000 feet to the inch.

We did not find it necessary to make topographic maps of any of the areas mentioned in this report, nor to establish sea-level elevations within them.

We began this survey on April 5, 1925, and finished it on July

25, 1925.

This report covers about 450 miles of the boundary along the Red River from the 100th meridian to the eastern limit of Lamar County, Texas, except the part within the Big Bend and Fort Augur Areas heretofore reported.

The boundary from the eastern limit of Lamar County, Texas, to the western limit of the State of Arkansas, about 90 miles, remains to be investigated and surveyed, and will be dealt with in a future

report.

The work described in this report having been done pursuant to section (c) of paragraph 12 of the decree of March 12, 1923, the section is quoted:

"(c) Along all places where by avulsion since 1821 the river has come to occupy a new channel whereby fast upland theretofore on one side of the river has come to be on the other side,—the line in every such instance to be run, located and marked on and along what was the south bank before the change occurred."

Thus the decree requires first an investigation of the Red River to seek out the avulsive changes, and then directs that the boundary line be surveyed and marked around them.

Before beginning the field work we assembled from the following

sources all available data concerning reported cut-offs:

- 1. Testimony and map exhibits submitted during the trial of the suit in the case of Oklahoma v. Texas, United States intervener;
- 2. Records of the United States General Land Office; and,
- Records of the State of Texas General Land Office.

Then we went to the Red River and obtained other information about it from the people living there, whom we met at public hearings held for the purpose at the various places stated. After the hearings we went upon the ground wherever the boundary was in doubt and carefully examined all such places which we had found beforehand from the records or of which we had been told at the hearings. From the records we found six such places. From the information given at the hearings, and obtained upon the ground, we identified these as doubtful, and found six more; and so we came upon all twelve places we describe.

Well in advance of holding the public hearings, we widely advertised them by personal notification, and by news items courteously published just before each hearing in the local papers, giving

the time, place and purpose of the hearings.

We called to the hearings all persons owning land along the boundary whose property rights might be affected, and those living on the river, or near it, or in any way whatever interested in this subject. We requested those to come to the hearings who had lived long on the river and could give us definite information about it, covering long unbroken periods of time of which they knew of

their own knowledge; and many came.

At the opening of each hearing we read the decree of March 12, 1923, and stated the purpose of the hearing. We explained and illustrated with diagrams and sketches the changes in the position of the boundary brought about by the changes in the position of the Red River resulting from erosion, accretion and avulsion, the terms used in the decree. We described the work we were instructed to do, and stated that we were ordered to survey and mark the boundary in the avulsive areas only, and that it was about these areas in particular that we desired information. Then from all those

gathered at the hearing we invited any questions they might have to ask or any statements they might care to make about any part of the boundary along the river anywhere in the county, or about anything concerning this business. Taking up each separate case, we listened to all they had to say about it, and answered all their questions to the best of our knowledge on the subject. The burden of the inquiries related to the shifting of the boundary by the gradual changing of the Red River by erosion and accretion, and the consequent status of the lands along the boundary on both sides. We were told of many such changes in the river in all the counties, and as they were very obvious we were able to dispose of them promptly at the hearings, but not being directly concerned with changes of this kind we made no records of them except in the few places that we report herein, where the rapidity and extent of the erosion and accretion have been so extraordinary that the nature of the changes was at first obscured and the position of the boundary much confused. On the other hand, comparatively few instances of avulsion developed at the hearings. In some counties there were none at all, and that fact was the concensus of opinion at the hearings. But wherever there was an avulsion there was no doubt about it in the minds of persons who said they knew, and their statements were not contradicted. We have observed that wherever the Red River has changed its position by avulsion, or has made a "cut-off" as they call it, the occurrence is a noteworthy incident in the community and is never forgotten. One of the avulsions that we found, near Golden Bluff, in Lamar County, Texas, was so old that the time when it occurred could not be established, and the only tangible proof of it was the evidence of a former channel and the presence of some very old trees on the higher ground separating it from the present river. But the event had not been forgotten; it had been handed down, and had come to be a legend in the country round about. So, in every county, if there were any avulsive changes we were promptly told about them at the hearings. We discussed each avulsion with the qualified witnesses present, and recorded the testimony that they gave. The statements made by different witnesses about the same avulsion did not always entirely cover the same period of time, but they did not once conflict in any material matter and were never controverted. The facts as we subsequently found them on the ground always substantially supported the testimony of the witnesses except in one case, the M. J. Moore Survey in Wilbarger County, Texas, where plainly the river had made more recent changes than the otherwise accurate witness knew about.

We have combined and summarized the testimony of the different witnesses upon the same case and we give it in this form in the

detailed descriptions that follow.

The information that we have relied upon has come from persons intimately acquainted with the Red River, each in his respective neighborhood; and from an adequate number of such persons we have collectively gotten dependable information upon all of the river in each county. Some very aged residents have patiently told us the history of the river as they have known it since their

early childhood; and altogether we conclude that we have found all of the important avulsive changes in the river in all of these counties that have taken place from the earliest recollection of the oldest inhabitants to the present time.

In the areas to be surveyed we went upon the ground, determined the boundary line and marked it. We conferred upon the positions for the witness posts, reference monuments, and other principal

marks, and planned the surveying work to be done.

Where the boundary follows the cut bank of the river and the cut banks of the avulsive islands, we have established it on and along these banks as directed by the decree and in the manner stated in our report of April 25, 1924, on the Big Bend Area. In these places the boundary line, marked by the cut bank along which it runs, is also indicated at various points by witness posts, set upon stable ground short distances away from the boundary bank. Along the former channels that have been abandoned by the river, and where the boundary crosses areas of accretion between these bends and the present position of the river, we have marked the line at frequent, varying intervals by posts set exactly on it. At the avulsive cutoffs, where the boundary crosses the sand bed and the flowing water in the river, we have not marked the line in any way, and the field notes alone define it.

We have made accurate connections from the boundary line to the subdivisional surveys in both Texas and Oklahoma. The relative positions are shown upon the accompanying maps. This information is a matter of much importance to every landowner whose property abuts the boundary. Some of the surveys on the south side of the river date back to the Republic of Texas, and others were made as late as 1919. In some places the adjoining surveys are of widely different dates, and show much confusion in the position of the river. In several places we have found an overlapping of Texas and Oklahoma subdivisional surveys, and in other places we have

found areas that have not been subdivided in either State.

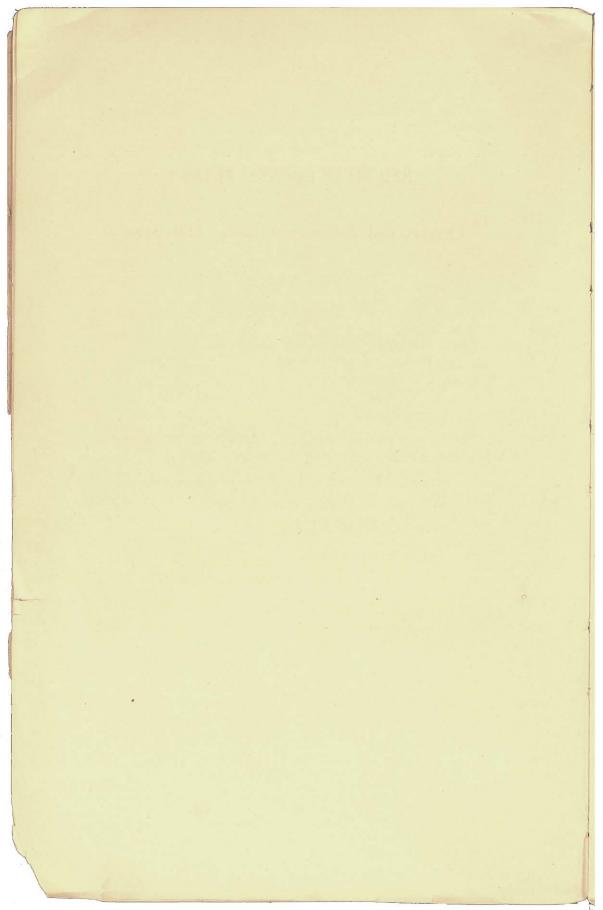
In the seven areas herein reported we have surveyed 40 miles of boundary line, 101 miles of connecting lines, 66 miles of sub-divisional retracements, and 80 miles of additional river meanders,

in all a total of 287 miles surveyed.

The avulsive changes in the position of the Red River are the direct results of the highest prolonged floods in the river such as those of 1867, 1876, 1891 and 1908, to which witnesses at all of the hearings repeatedly referred. Concerning these changes we have noticed the marked difference between the action of the river in the upper reaches and that in the lower reaches. At McFarland Island, Ayers Island and almost everywhere along the upper river on both sides, the valley land, though uneven, is generally highest at the river front. Here the river is defined by very low banks from 2,000 to 6,000 feet apart. The river at substantial flow is shallow, but the gradient is steep. The valley land is sandy, unstable, and sparsely timbered. From the river front back to the foot of the adjacent bluff a continuous depression usually intervenes. A creek coming in from the hills ordinarily approaches close to the river, but is pre-

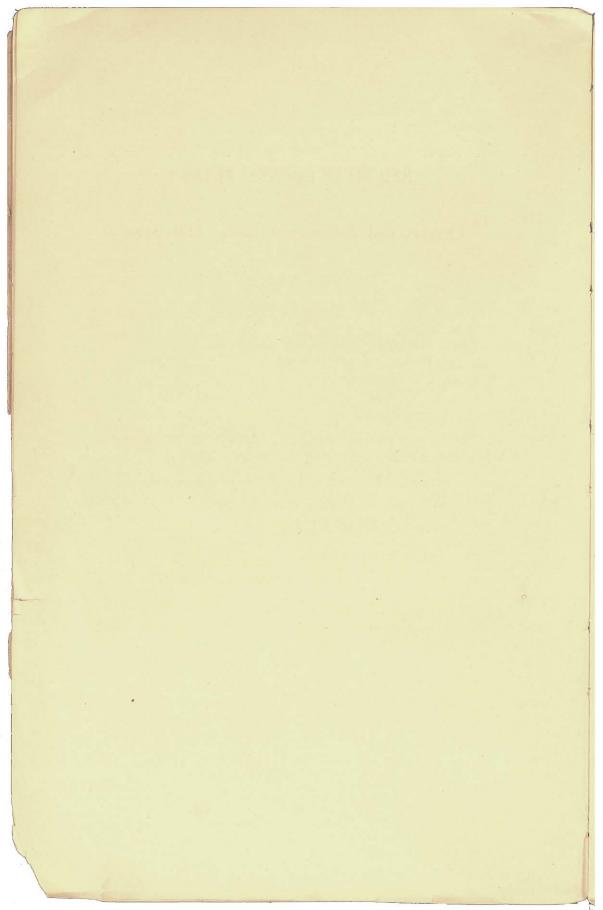
vented from entering it by the high ground along the river front. The creek is sharply deflected downstream through the depression. in which it cuts a winding channel, and empties into the river with an abrupt fall at the outlet some distance below the place where it emerged from the hills. The avulsion takes place when the river during a flood rapidly erodes the protecting high ground along the river front, reaches the creek channel, and cuts into it. the flood water of the river bursting into the creek channel, sweeps through it and deepens, widens and straightens it. In this way a portion of the valley is severed from the mainland and becomes an avulsive island. The cut in the creek channel makes a new outlet for the creek at the upper end of the island. But the avulsion may not be completed by one flood. When the river resumes the normal stage it may leave the new channel and continue flowing in the main sand bed. Meanwhile the island may again be made a part of the mainland by quantities of wind-borne sand piled high at the head of the new channel, and held in place by the small vegetation that soon covers it. In due course another flood may again cut off the island and enlarge the new channel. So, the avulsion is complete or not, as one or the other of these opposite forces prevails.

In the lower reaches of the river, as at Popes Point, Grubbs Lake, Pitts Bend, and elsewhere, the river has a nearly uniform channel, about 600 feet wide, winding through a broad, heavily timbered, alluvial valley. Here the channel is defined by high banks which ordinarily contain all of the river. The places where avulsions occur are in the necks of long, narrow bends that have reached the limit of abruptness. In a normal bend erosion begins against the outer bank in the point of the bend. At the same time accretion attaches to the inner bank opposite, and the bend is lengthened by this process. At the neck of the bend erosion takes place on opposite sides of the peninsula that forms the bend. As the erosion progresses the two parts of the channel move nearer and nearer together, cutting into the neck of the peninsula until but a narrow strip of land separates them. Then the flood volume, retarded by the flat gradient around the long bend, and the obstructions that consequently lodge in it, suddenly destroys the narrow strip of land at the neck of the bend, makes a new channel across it, and completes the avulsion. Except at flood stage, the river promptly abandons the old channel around the bend and continues flowing in the new one across the neck of the former peninsula, which for a short time is an avulsive island, but soon becomes part of the mainland on the opposite side of the river. Subsequent floods in the river flow around the old channel, but the current being very slow the depositing of material is very rapid. Soon the bottom of the old channel is filled high with river earth, and willow and cottonwood trees soon spring up in it. A few lakes and ponds remain for some years, but they gradually get smaller and finally disappear. After a time, the channel is used for pasture, and when more completely filled, it may be put into cultivation. Parts of the old banks remain indefinitely, and stand here and there as plain markers of where the river once ran.



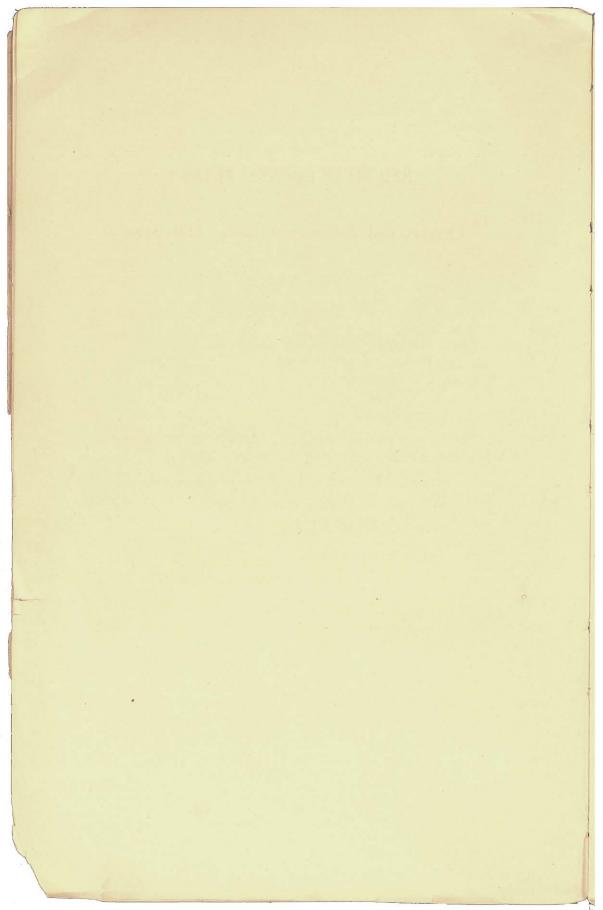
PUBLIC HEARINGS

Areas Examined and Surveyed
from the
One Hundredth Meridian
to the
Eastern Limit of Lamar County, Texas



We have held the public hearings, made the field examinations, and executed the surveys in the following order:

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| II. | \{\text{Wilbarger County, Texas}}\{\text{Jackson and Tillman Counties, Oklahoma}}\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | . 23 |
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I.

IN

WICHITA COUNTY, TEXAS,

OPPOSITE

Tillman and Cotton Counties, Oklahoma.

Public Hearings:

Wichita Falls, Texas, April 7, 8, 9 and 18, 1925.

Resuming the consideration of the boundary in Wichita County

we held the first hearing at Wichita Falls.

We found only one avulsive change in the position of the Red River in this county, the area known as McFarland Island, described as follows:

McFarland Island.

(Map No. 6.)

Location:

Wichita County, Texas.

About 12 miles north of Wichita Falls, at the mouth of Gilbert Creek.

Texas Original Surveys:

John Deck, M. Gilbert, Bryant Brown, Wm. H. Anderson, N. Salinas, John Johnson.

Cotton County, Oklahoma, About 12 miles southeast of Devol. Opposite Secs. 31, 32 and 33, T. 5 S., R. 12 W.

Principal Witnesses:

Louis B. Jennie, 1917 Tenth Street, Wichita Falls, Texas. Jeff Waggoner, 1600 Buchanan Street, Wichita Falls, Texas.

J. D. Cooper, Route 4, Wichita Falls, Texas.

Hon. Edwin Dabney, Assistant Attorney General of Oklahoma, Oklahoma City, Oklahoma. Summary of Testimony:

This place has long been known as McFarland Island, although it was originally the Texas mainland. The Texas surveys, located mainly on the bluff, extended northward far enough to take in some of the valley mainland of which the island was once a part. all of this was the Texas mainland there was a narrow place in it near the upper end of what afterwards became the island. This place was described as a neck of valley land of the usual kind, covered with small vegetation of the usual sort. It was otherwise referred to as a low, flat, grass-covered prairie, about five feet higher than the Red River sand bed adjoining it. A well traveled public road between Wichita Falls, Texas, and Fort Sill, Oklahoma, coming down off the Texas bluff, crossed Gilbert Creek over a low bridge, crossed this neck of prairie land, wearing a low place in it, and passed down, into the river sand bed, and continued northward across the Red River into Oklahoma. At one time Gilbert Creek, too, may have crossed this neck of land and emptied directly into the river at the upper end of what is now the island, but at another time it turned eastward, and ran between the island and the foot of the Texas bluff, following a low depression that was always there, and emptied into the river farther downstream. On the mainland, close up to the south bank of Gilbert Creek when it flowed down this depression, there was an old apple orchard one acre in extent, belonging to the McFarland brothers. The settlers living in this neighborhood considered the island part of the Texas mainland, and there were no claims to the contrary. It was looked upon as excess land in Texas and no one paid taxes on it. The Indians would not molest the Texas residents when they cut timber from the island or pastured their cattle on it. The south cut-bank of the Red River was always north of the island until 1891. In that year the Red River, during a very high flood, went over, and cut through this narrow neck of prairie land and severed McFarland Island from the Texas mainland. The flood swept down the low depression between the island and the bluff, along the channel of Gilbert Creek, made the channel much deeper and wider, and carried away most of the old apple orchard. This was the first flood in the Red River that was known to have run south of the island, between the island and the Texas mainland. After this flood the river left the new channel and continued flowing as before in the sand bed north of the island. Ten years later, on May 15, 1901, a second high flood in the Red River, sweeping down the course between the island and the mainland, very much enlarged the cut-off channel by cutting away the land on both sides of it. This flood took away the last of the old apple orchard. But again the river did not continue in the cut-off channel south of the island, but remained altogether in the sand bed north of the island. ing the years that followed, sand drifted into the cut-off channel and filled it up again about to the former level of the ground. In 1907 a third severe flood in the river ran between the island and the mainland and made of the cut-off channel a wide sand bed, which was thenceforth an active part of the sand bed of the Red River. Subsequent floods deepened it, so that now the Red River, at all but the lowest stages, passes through the cut-off channel and goes around McFarland Island.

Field Work: - Conclusions.

We went to McFarland Island and closely examined the area from our Reference Monument No. 1 and our Witness Post No. 0 on the lower limit of the Big Bend Area, down the Red River for a considerable distance below the island. The facts so far as we could ascertain them on the ground corroborate the information taken from the records and given at the hearings. We found the approximate position of the low neck of land that once connected the island with the mainland, and found an old road there. Gilbert Creek now has two openings into the Red River, one above the island and one below it; and a freshet in the creek might run both ways. Both sides of the cut-off channel and the north bank of the island are being worn away by the river. The channel is growing larger and the island is growing smaller, but the island is uninjured by the floods and has a few large cottonwood trees growing on it. The highest part of the island is ten to twelve feet higher than the river sand bed all around When we examined the area there was a substantial flow of water in the river covering all of the sand bed and running around the island. We waded knee-deep in the flowing water of the river, across the cut-off channel to the upper end of the island. We examined the island and all the north cut-bank of it, and came back to the Texas mainland by wading again across the cut-off channel at the lower end of the island.

We conclude that the land forming McFarland Island was once a part of the Texas mainland, but was severed from it by the Red River during several floods, beginning with that of 1891. We have accordingly established and marked the boundary line on and along the north cut-bank of the island, across the avulsive channel above and below the island, and on and along the present south cut-bank of the Red River, upstream to our Witness Post No. 0, and downstream a proper distance. Above the upper end of the island, where the connecting neck of land used to be, there is now an uneven stretch of bare sand, flood-washed and wind-swept, higher than the river sand bed by it, but lower than the valley land joining it. There is scant evidence on the ground to show just where the old cut bank of the river ran through this sandy waste; so here as well as at the lower end of the island, where the crossing is plain, we have used our best judgment and skill in running the boundary line from the north cutbank of the island, across the cut-off channel to the south cut-bank of the river over against the mainland.

The position of the boundary line here is that which existed on April 25, 1925.

The field notes for this area follow:

Beginning at Reference Monument No. 1 on the Texas bluff, as such monument is hereinafter defined, thence

North, on a southerly extension of the line through Township 5 South, between Ranges 12 and 13 West, in Oklahoma, 2138.2 ft. (32.397 chs.) to Witness Post "0". This witness post is the initial point of the survey in the Big Bend Area; it is located on the flood plain within the river valley.

Thence from Witness Post "0"

North, 455 ft. (6.89 chs.) to the south or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank downstream with traverse of the boundary on and along the cut bank:

> S. 41° 15′ E., 136.6 ft. (2.10 chs.) S. 27° 05′ E., 224.4 ft. (3.40 chs.) S. 44° 06′ E., 270.6 ft. (4.10 chs.) N. 80° 58′ E., 132.0 ft. (2.00 chs.) N. 62° 32′ E., 165.0 ft. (2.50 chs.) S. 89° 0 E., 118.8 ft. (1.80 chs.) S. 67 . E., 105.6 ft. (1.60 chs.) S. 89° 43′ E., 158.4 ft. (2.40 chs.) S. 76° 50′ E., 600.6 ft. (9.10 chs.) S. 71° 17′ E., 264.0 ft. (4.00 chs.) S. 63° 50' E., 389.4 ft. (5.90 chs.) S. 52° 29' E., 211.2 ft. (3.20 chs.) S. 48° 43′ E., 349.8 ft. (5.30 chs.) S. 80° 30′ E., 145.2 ft. (2.20 chs.) N. 81° 11′ E., 171.6 ft. (2.60 chs.) S. 70° 03′ E., 792.0 ft. (12.00 chs.) S. 50° 10′ E., 402.6 ft. (6.10 chs.) S. 66° 38' E., 547.2 ft. (8.70 chs.) S. 54° 42′ E., 488.4 ft. (7.40 chs.) S. 41° 19′ E., 825.0 ft. (12.50 chs.) S. 15° 33′ E., 579.5 ft. (8.78 chs.)

From this point Witness Post No. 1 bears N. 81° 47′ W., 731.9 ft. (11.09 chs.) dist.

Thence from the above point on south bank of river the boundary crosses to a point on north bank of McFarland Island

S. 64° 57′ E., 2666.4 ft. (40.40 chs.)

From the latter point Witness Post No. 2 bears S. 64° 58′ E., 107.6 ft. (1.63 chs.) dist.

From Witness Post No. 2 Reference Monument No. 25 bears S. 36° 23′ 30″ W., 3031.6 ft. (45.934 chs.) dist.

Thence from the above point on north bank of McFarland Island continuing downstream with traverse of the boundary on and along the north bank of island:

N. 39° 05′ E., 138.6 ft. (2.10 chs.)
N. 59° 17′ E., 244.2 ft. (3.70 chs.)
N. 80° 40′ E., 277.2 ft. (4.20 chs.)
S. 71° 05′ E., 660.0 ft. (10.00 chs.)
S. 74° 17′ E., 627.0 ft. (9.50 chs.)
S. 63° 29′ E., 158.4 ft. (2.40 chs.)
S. 46° 02′ E., 475.2 ft. (7.20 chs.)
S. 55° 56′ E., 297.0 ft. (4.50 chs.)
S. 47° 29′ E., 330.0 ft. (5.00 chs.)
S. 55° 19′ E., 415.8 ft. (6.30 chs.)
S. 61° 42′ E., 653.4 ft. (9.90 chs.)

From this point Witness Post No. 3 bears S. 82° 04′ W., 596.0 ft. (9.03 chs.) dist.

From Witness Post No. 3, Reference Monument No. 26 bears S.

72° 57′ 40" E., 4745.7 ft. (71.905 chs.) dist.

Thence from the above point on north bank McFarland Island the boundary crosses to a point on south or right cut-ban' of Red River

S. 52° 02' E., 840.8 ft. (12.74 chs.)

Thence from the above point on south or right cut-bank of Red River continuing downstream with traverse of boundary on and along the cut bank:

S. 52° 02' E., 627.0 ft. (9.50 chs.)

From the latter point, Witness Post No. 4 bears S. 9° 56' E., 541.9

ft. (8.21 chs.) dist.

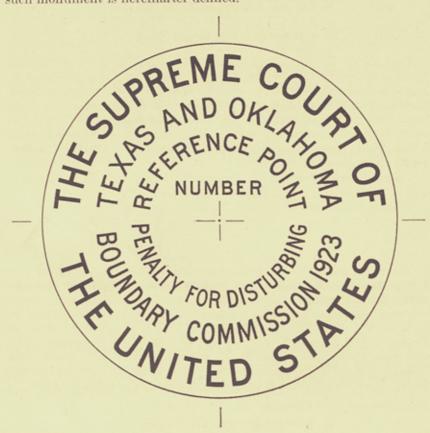
Thence from the above point on south or right cut-bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

S. 74° 40′ E., 580.8 ft. (8.80 chs.)
S. 73° 06′ E., 316.8 ft. (4.80 chs.)
S. 61° 53′ E., 257.4 ft. (3.90 chs.)
S. 57° 20′ E., 204.6 ft. (3.10 chs.)
S. 68° 37′ E., 264.0 ft. (4.00 chs.)
S. 81° 40′ E., 330.0 ft. (5.00 chs.)
N. 83° 03′ E., 270.6 ft. (4.10 chs.)
N. 48° 23′ E., 231.0 ft. (3.50 chs.)
N. 82° 19′ E., 267.3 ft. (4.05 chs.)
N. 84° 24′ E., 237.6 ft. (3.60 chs.)
N. 79° 25′ E., 231.0 ft. (3.50 chs.)

From this point Witness Post No. 5 bears South, 109.6 ft. (1.66 chs.) dist.

From Witness Post No. 5,

South, on a southerly extension of the line between Sections 33 and 34, Township 5 South, Range 12 West, in Oklahoma, 192.1 ft. (2.91 chs.) to Reference Monument No. 26 on the Texas bluff, as such monument is hereinafter defined.



Bronze Tablet Imbedded in each Reference Monument.

Description of Reference Monuments.

All reference monuments (abbreviated: "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked by a heavy bronze tablet, inscribed as shown above.

The reference monuments on the Oklahoma side are correlated with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diameter, having a bronze cap, the post being placed full length in the concrete form, described above. These monuments are appropriately marked

according to the standard specifications of the General Land Office. They readily identify the position of the monument in the United States rectangular survey system.

Reference Monuments in Texas.

Reference Monument No. 1.

This station is on the meridional extension of the line between Ranges 12 and 13 West, in Oklahoma. The monument is located on a gentle north slope 270 ft. south of the top of the steep timbered portion of the Texas bluff, and at a point 870 ft. southeast of a small farm house. The station is in the John Deck Survey No. 275. The point is about 4 miles east and 2 miles south of Burkburnett from which place the station may be conveniently reached by wagon road. The point is designated "South Range Line Station 13/12" (S. Rg. L. 13/12).

Latitude, 34° 04′ 13.737″. Longitude, 98° 30′ 18.831″. Elevation, 993.546 feet.

Reference Monument No. 25.

This station is located on top of, and approximately 400 ft. south of the Texas bluff in a cultivated field owned by L. H. Horn. From the monument the southeast corner of L. H. Horn's house bears N. 71° 34′ W., 1426 ft. (21.61 chs.) dist. The southwest corner of Prescott's house bears N. 85° 43′ E., 575 ft. (8.71 chs.) dist. The monument is located on the M. Gilbert Survey and is approximately 5 miles east, and 2½ miles south of Burkburnett, Wichita County, Texas, from which point it may be conveniently reached by road.

Latitude, 34° 03′ 29.895″. Longitude, 98° 29′ 03.248″.

Reference Monument No. 26.

This station is on the meridional extension of the line between Sections 33 and 34, Township 5 South, Range 12 West, in Oklahoma. The monument is located approximately 70 feet south of the top of steep timbered portion of the Texas bluff and at a point S. 70° 15′ W., 20 feet from a large two story frame house. The point is about 7 miles east and 3 miles south of Burkburnett, Wichita County, Texas, from which place it may be conveniently reached by road.

Latitude, 34° 03′ 24.999″. Longitude, 98° 27′ 09.736″.

Reference Monuments in Oklahoma.

North Range Line 13/12.

This station is on the southwest slope of the Oklahoma bluff, on line through Township 5 South, between Ranges 12 and 13 West, 575.1 ft. south of the Cor. of Secs. 19, 24, 25 and 30. The station is 5 miles east and 6 miles south of Devol, and may be reached by public road from Devol.

From this station Cashion Station, of the U. S. C. & G. S., in Texas, bears S. 8° 22′ 21″ W., 28680 ft.; Miller Station, U. S. C. & G. S., in Oklahoma, bears N. 42° 53′ 36″ W., 30410 ft.; Willis Station, U. S. C. & G. S., in Oklahoma, bears S. 47° 42′ 26″ E., 4347 ft.

Latitude, 34° 05′ 57.637″. Longitude, 98° 30′ 18.831″.

Witness Corner Sections 27, 28, 33 and 34.

This station is on top of a knoll of the Oklahoma bluff at a point from which the corner of Sections 27, 28, 33 and 34, T. 5 S., R. 12 W., bears North, 745.8 ft. (11.30 chs.) The section corner is located at the intersection of public roads bearing east, west and north from the corner. The station is located 8 miles east and 7 miles south of Devol, Cotton County, Oklahoma, from which place it may be conveniently reached by road.

Latitude, 34° 05′ 03.867″. Longitude, 98° 27′ 09.736″.

Description of Witness Posts.

The witness posts are all rough pine, creosoted. Most of the posts are 5 ft. 6 ins. long, and about 4 ins. diameter, set 36 ins. in the ground. The part of each post above ground is squared, and painted white. The posts are numbered downstream. Witness Post "0" of the Big Bend Area marks the upper limit of the McFarland Island survey; Witness Post No. 5 marks the lower limit. The numbers are stamped in the tops of the posts; they are also stenciled on the sides, as follows:

Tex.-Okla. Bdy. (on side toward the river); Witness Post (on side downstream); U. S. Supreme Court (on side upstream); and, Number (on side opposite to the river).

Bearing Trees.

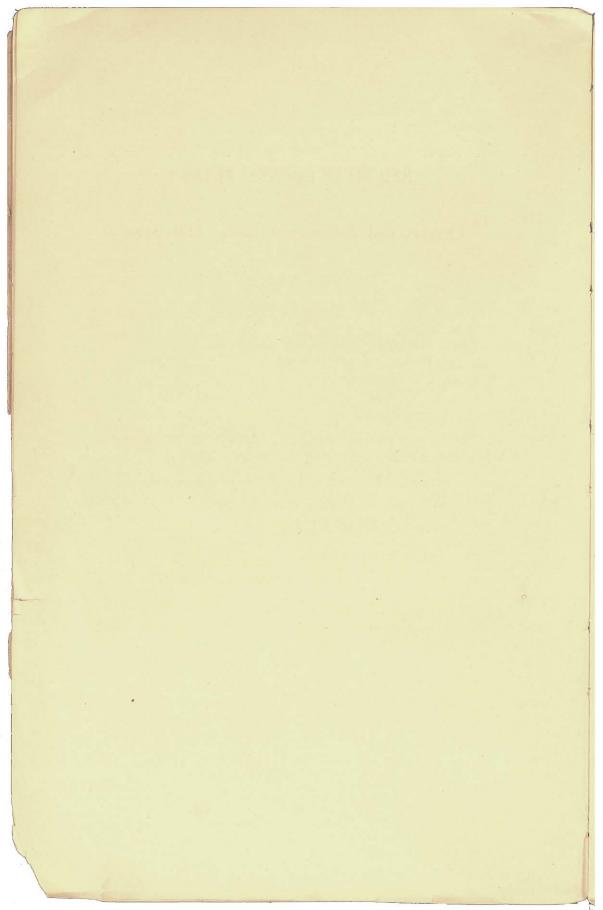
The following table identifies bearing trees which were employed as accessories to witness posts. The bearing trees were blazed and scribed in the usual manner practiced by surveyors; the marks include the serial number of the post to which the tree refers:

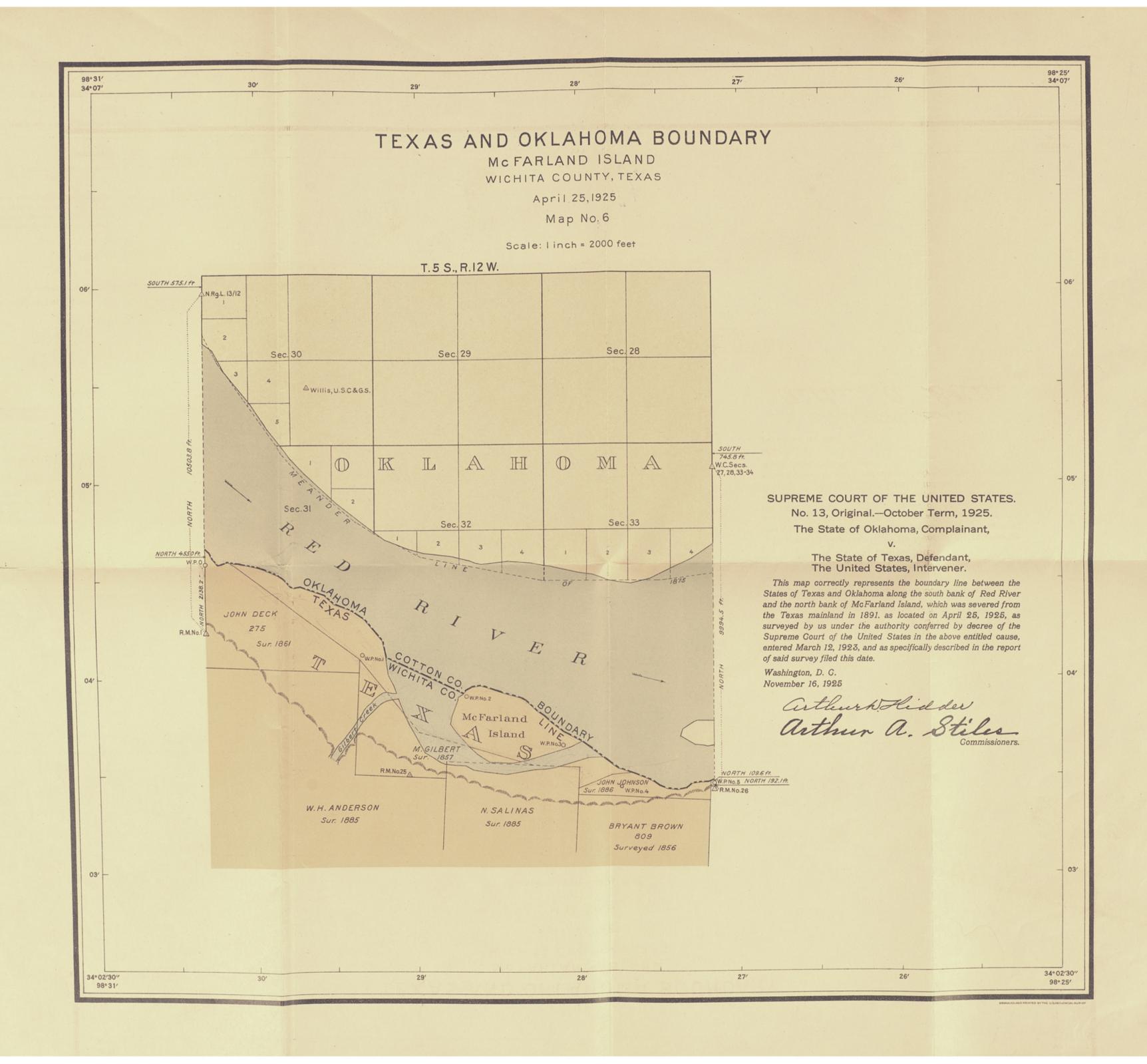
| Post. | Trees. | Diam. | Bearings. | Dist. |
|----------------|---------------------|--------------------|--------------------------------|---------------------|
| No. 1 | Cottonwood | 18 ins. | S. 21° 41′ W. | 126.7 ft. |
| No. 2 | Cottonwood | 10 ins. | S. 48° 40′ W. | 47.2 ft. |
| No. 3 No. 5 | Cottonwood Pecan | 15 ins. 26 ins. | S. 84° 15′ W. S. 63° 30′ E. | 6.8 ft. 26.4 ft. |

Azimuths and Lengths of Lines Connecting Reference Monuments and Witness Posts.

| Station. | Forward and back azimuth. | To station. | Distance. |
|---------------|--|----------------------------------|-----------------------------|
| R. M. No. 1. | North | N. Rg. L. 13/12 | 10503.8 Ft. 159.149 Chs. |
| | North | W. P. No. "0" | 2138.2 Ft. 32.397 Chs. |
| | | W. C. Secs. 27, 28, 33 and 34 | |
| | S. $81^{\circ} 45' 40''$ E. N. $81^{\circ} 45' 10''$ W. | W. P. No. 1 | 4967.2 Ft. 75.260 Chs. |
| | S. 72° 48′ 10″ E. N. 72° 46′ 20″ W. | R. M. No. 26 | 16650.7 Ft. 252.284 Chs. |
| | S. 55° 07′ 40″ E. N. 55° 07′ 00″ W. | R. M. No. 25 | 7749.0 Ft. 117.409 Chs. |
| R. M. No. 25. | N. 23° 02′ 50″ W. S. 23° 03′ 30″ E. | N. Rg. L. 13/12 | 16231.2 Ft. 245.927 Chs. |
| | N. 21° 10′ 10″ W. S. 21° 10′ 20″ E. | W. P. No. 1 | 3988.2 Ft. 60.427 Chs. |
| | N. 36° 23′ 20″ E. S. 36° 23′ 40″ W. | W. P. No. 2 | 3031.6 Ft. 45.934 Chs. |
| | | W. C. Secs. 27, 28, 33 and 34 | |
| | S. 87° 02′ 50″ E. N. 87° 01′ 50″ W. | R. M. No. 26 | 9561.4 Ft. 144.870 Chs. |
| R. M. No. 26 | | W. C. Secs. 27, 28, 33 and 34 | 9994.5 Ft. 151.432 Chs. |
| | | W. P. No. 5 | 192.1 Ft. 2.910 Chs. |
| | | | |

Map No. 6, showing McFarland Island, is inserted here:





II.

IN

WILBARGER COUNTY, TEXAS,

OPPOSITE

Jackson and Tillman Counties, Oklahoma.

Public Hearings Vernon, Texas, April 10, 11 and 13, 1925.

We have established the boundary along the Red River in this county at Ayers Island. We have also considered the location of the boundary in the vicinity of the M. J. Moore Texas Survey. These areas are described as follows:

Ayers Island. (Map No. 7.)

Location:

Hardeman and Wilbarger Counties, Texas.

At the north end of the line between these two counties.

Texas Original Surveys:

G. C. & S. F. R. R. Co., Nos. 1 and 2; J. G. Ayers; Margaret A. Sams; Mrs. Eliza J. Littleton; Frac. 2, M. A. Sams and J. G. Ayers.

Jackson County, Oklahoma.

About 20 miles southwest of Altus. Opposite Sections 11 and 12, T. 2 S., R. 22 W.

Principal Witness:

J. G. Ayers, Chillicothe, Texas.

Summary of Testimony:

This place is locally known as Ayers Island. It is the property of J. G. Ayers of Chillicothe, Texas, who has owned it for thirty years. He attended the public hearing in Vernon, Texas, on April 11, 1925, identified the property and told us how best to reach it.

Field Work:

Ayers Island is the place described on page 14 of the opinion delivered January 15, 1923, and in paragraph 10 of the decree of March 12, 1923, which reads:

"10. The island in front of the line between Hardeman and Wilbarger Counties, in the State of Texas, was part of the fast valley land on the south side of the river in 1821, and was severed from the land on that side by avulsion in 1902. The island is within the State of Texas and the state boundary is along its northerly bank."

Pursuant to this paragraph of the decree, we went upon the ground and found the island to be at the end of the county line as described. We fully identified the island and the avulsive channel separating it from the Texas mainland. We thoroughly examined the island, the river and all the area involved. Then we established and marked the boundary line along the north cut-bank of the island as directed in the decree. From the north cut-bank we used our best judgment in extending the boundary line across the avulsive channel at the upper and lower ends of the island, to the present cut-bank of the river, along which we continued the boundary line for suitable distances both ways.

The position of the boundary line is that which existed on April

22, 1925.

The field notes for this area follow:

Beginning at Reference Monument No. 27 on the Texas bluff, as

such monument is hereinafter defined, thence

North, on a southerly extension of the line through Township 2 South, between Ranges 21 and 22 West, in Oklahoma, 274.9 ft. (4.165 chs.) to Witness Post "0". This witness post is located on top of high steep sandy bluff.

Thence from Witness Post "0"

North, 136.6 ft. (2.07 chs.) to the south or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank upstream with traverse of the boundary on and along the cut bank:

N. 75° 57′ W., 353.1 ft. (5.35 chs.) N. 48° 17′ W., 1240.1 ft. (18.79 chs.) N. 60° 25′ W., 254.1 ft. (3.85 chs.) N. 39° 40′ W., 766.9 ft. (11.62 chs.) N. 43° 38′ W., 793.3 ft. (12.02 chs.) N. 61° 54′ W., 453.4 ft. (6.87 chs.) N. 64° 30′ W., 406.6 ft. (6.16 chs.) N. 69° 28′ W., 855.4 ft. (12.96 chs.) N. 46° 13′ W., 373.6 ft. (5.66 chs.) From this point Witness Post No. 1 bears S. 56° 57′ W., 149.8 ft.

(2.27 chs.) dist.

Thence from the above point on river bank continue upstream with traverse of the boundary on and along the cut bank:

Thence from the above point on south bank of river the boundary crosses to a point on north bank of Ayers Island

From the latter point Witness Post No. 2 bears South, 114.2 ft.

(1.73 chs.) dist.

Thence from the above point on north bank of Ayers Island continuing upstream with traverse of the boundary on and along the north bank of island:

From this point twin cottonwood trees 6 and 8 inches in diameter

bear S. 89° 40′ W., 191.4 ft. (2.90 chs.) dist.

Thence from the above point on north bank of Ayers Island continue upstream with traverse of the boundary on and along the north bank of island:

N. 34° 06′ W., 232.3 ft. (3.52 chs.) N. 50° 20′ W., 248.8 ft. (3.77 chs.) N. 62° 09′ W., 601.9 ft. (9.12 chs.) N. 53° 33′ W., 937.2 ft. (14.20 chs.) N. 84° 51′ W., 572.2 ft. (8.67 chs.) N. 37° 55′ W., 592.7 ft. (8.98 chs.) N. 60° 27′ W., 372.9 ft. (5.65 chs.)

From this point Witness Post No. 3 on the Wilbarger-Hardeman County Line bears S. 0° 32′ W., 157.1 ft. (2.38 chs.) dist.

Thence from the above point on the north bank of Ayers Island continuing upstream with traverse of the boundary on and along the north bank of island:

N. 39° 32′ W., 287.8 ft. (4.36 chs.) N. 44° 21′ W., 160.4 ft. (2.43 chs.) N. 63° 52′ W., 790.0 ft. (11.97 chs.) S. 81° 24′ W., 404.6 ft. (6.13 chs.) S. 52° 01′ W., 215.8 ft. (3.27 chs.) S. 44° 02′ W., 365.6 ft. (5.54 chs.)

From this point Witness Point No. 4 bears S. 32° 33′ E., 261.4 ft. (3.96 chs.) dist.

Thence from the above point on north bank of Ayers Island the boundary crosses to a point on south or right cut-bank of Red River

> S. 69° 42′ W., 302.9 ft. (4.59 chs.) N. 67° 49′ W., 436.3 ft. (6.61 chs.)

Thence from the above point on south or right cut-bank of Red River continuing upstream with traverse of the boundary on and along the cut bank:

> N. 53° 02′ W., 306.2 ft. (4.64 chs.) N. 60° 17′ W., 299.6 ft. (4.54 chs.)

From this point Witness Post No. 5 bears S. 27° 47′ W., 462.7 ft.

(7.01 chs.) dist.

Thence from the above point on south or right cut-bank of Red River continuing upstream with traverse of the boundary on and along the cut bank:

N. 70° 00′ W., 570.9 ft. (8.65 chs.)
N. 53° 42′ W., 240.0 ft. (4.00 chs.)
N. 59° 51′ W., 1063.3 ft. (16.11 chs.)
N. 77° 15′ W., 152.5 ft. (2.31 chs.)
N. 54° 54′ W., 660.0 ft. (10.00 chs.)
N. 31° 04′ W., 937.9 ft. (14.21 chs.)
N. 9° 09′ W., 467.9 ft. (7.09 chs.)
N. 44° 18′ W., 501.6 ft. (7.60 chs.)
N. 65° 01′ W., 338.6 ft. (5.13 chs.)
N. 85° 58′ W., 288.4 ft. (4.37 chs.)
N. 57° 29′ W., 282.5 ft. (4.28 chs.)
N. 38° 23′ W., 123.4 ft. (1.87 chs.)

From this point Witness Post No. 6 bears South, 601.6 ft. (9.115 chs.) dist.

From Witness Post No. 6

South, on a southerly extension of the line between Sections 3 and 4, Township 2 South, Range 22 West, in Oklahoma, 2886.3 ft. (43.732 chs.) to Reference Monument No. 29 on the Texas bluff, as such monument is hereinafter defined.

Description of Reference Monuments.

All reference monuments (abbreviated: "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked by a heavy bronze tablet, inscribed as shown on page 18.

The reference monuments on the Oklahoma side are correlated

with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diameter, having a bronze cap, the post being placed full length in the concrete form, described above. The monuments are appropriately marked according to the standard specifications of the General Land Office. They readily identify the position of the monument in the United States rectangular survey system.

Reference Monuments in Texas.

Reference Monument No. 27.

This station is on the meridional extension of the line between Sections 13 and 18, Township 2 South, Ranges 21 and 22 West, in Oklahoma, and 7249.7 ft. south of the corner of Sections 7, 12, 13 and 18 of that township. The monument is located on top of the Texas bluff on land of W. W. Riddle, 2468 feet (37.40 chs.) north of the Riddle house, and 231 feet (3.50 chs.) west of road leading to Webb's Crossing on Red River. This point is approximately 1½ miles west and 2½ miles north of Odell, Wilbarger County, Texas, from which place it may be conveniently reached by road.

Latitude, 34° 22′ 19.127″. Longitude, 99° 26′ 49.215″.

Reference Monument No. 28.

This station is on the meridional extension of the line between Sections 11 and 12, Township 2 South, Range 22 West, in Oklahoma, 10448.5 feet (158.31 chs.) south of the corner of Sections 1, 2, 11 and 12 of that township. The monument is located on top of the Texas bluff on pasture land of J. G. Ayers, 475 feet (7.20 chs.) west of the center of road leading to the Webb-Thancher crossing on Red River, 2046 feet (31.00 chs.) north of Ayers tenant house occupied by J. L. Brock, and approximately $2\frac{1}{2}$ miles west and $2\frac{1}{2}$ miles north of Odell. Wilbarger County, Texas, from which place it may be conveniently reached by road.

Latitude, 34° 22′ 39.633″. Longitude, 99° 27′ 51.543″.

Reference Monument No. 29.

This station is on the meridional extension of the line between Sections 3 and 4, Township 2 South, Range 22 West, in Oklahoma, and 6937.4 feet (105.112 chs.) south of the ¼ section corner between Sections 3 and 4 of that township. The monument is located on top of the Texas bluff on pasture land of J. S. Hayhurst, 752 feet (11.40 chs.) west of public road between lands of Ayers and Hayhurst leading to an old crossing of Red River. This point is about $4\frac{1}{2}$

miles west and 3¾ miles north of Odell, Wilbarger County, Texas, from which place it may be conveniently reached by road.

Latitude, 34° 23′ 40.713″. Longitude, 99° 29′ 57.124″.

Reference Monuments in Oklahoma.

Witness Point Sections 13 and 18.

This monument is located on the Oklahoma bluff 2251.3 feet (34.11 chs.) south of the corner of Sections 7, 12, 13 and 18, T. 2 S., Rgs. 21 and 22 W., and 330 feet (5.00 chs.) east of road leading to the Webb-Thancher crossing of Red River. From the monument Ed. Drury's house bears N. 14° E., 894 feet (13.55 chs.) dist. This point is about five miles south and 5½ miles west of Elmer, Jackson County, Oklahoma, from which place it may conveniently be reached by road.

Latitude, 34° 23′ 08.574″. Longitude, 99° 26′ 49.215″.

Witness Point Sections 11 and 12.

This monument is located on top of the Oklahoma bluff overlooking Red River, 3929.6 feet (59.54 chs.) south of the point for the corner of Sections 1, 2, 11 and 12, Township 2 South, Range 22 West. The monument is located on land of Rome Grifen, and is about 6½ miles west and 3¾ miles south of Elmer, Jackson County, Oklahoma, from which place one can drive to within ½ mile of the monument.

Latitude, 34° 23′ 44.117″. Longitude, 99° 27′ 51.543″.

Witness 1/4 Section Corner, Sections 3 and 4.

This station is located on the Oklahoma bluff on land of James Richey, 1188 feet (18.00 chs.) north of the north bank of Red River; 13.2 feet (20 lks.) south of the ½ section corner between Sections 3 and 4, Township 2 South, Range 22 West. The monument is located 8½ miles west and 3½ miles south of Elmer, Jackson County, Oklahoma, from which place it may be conveniently reached by road.

Latitude, 34° 24′ 49.207″. Longitude, 99° 29′ 57.124″.

Description of Witness Posts.

The witness posts are all rough pine, creosoted. Most of the posts are 5 ft. 6 ins. long, and about 8 ins. diameter, set 36 ins. in the ground. The part of each post above ground is squared, and painted white. The posts are numbered upstream. The initial post "0"

marks the lower limit; the terminal post, No. 6, marks the upper limit of the area. Witness Post No. 3 is located on the Hardeman-Wilbarger County boundary. The numbers are stamped in the tops of the posts; they are also stenciled on the sides, as follows:

Tex.-Okla. Bdy. (on side toward the river); Witness Post (on side downstream); U. S. Supreme Court (on side upstream); and, Number (on side opposite the river).

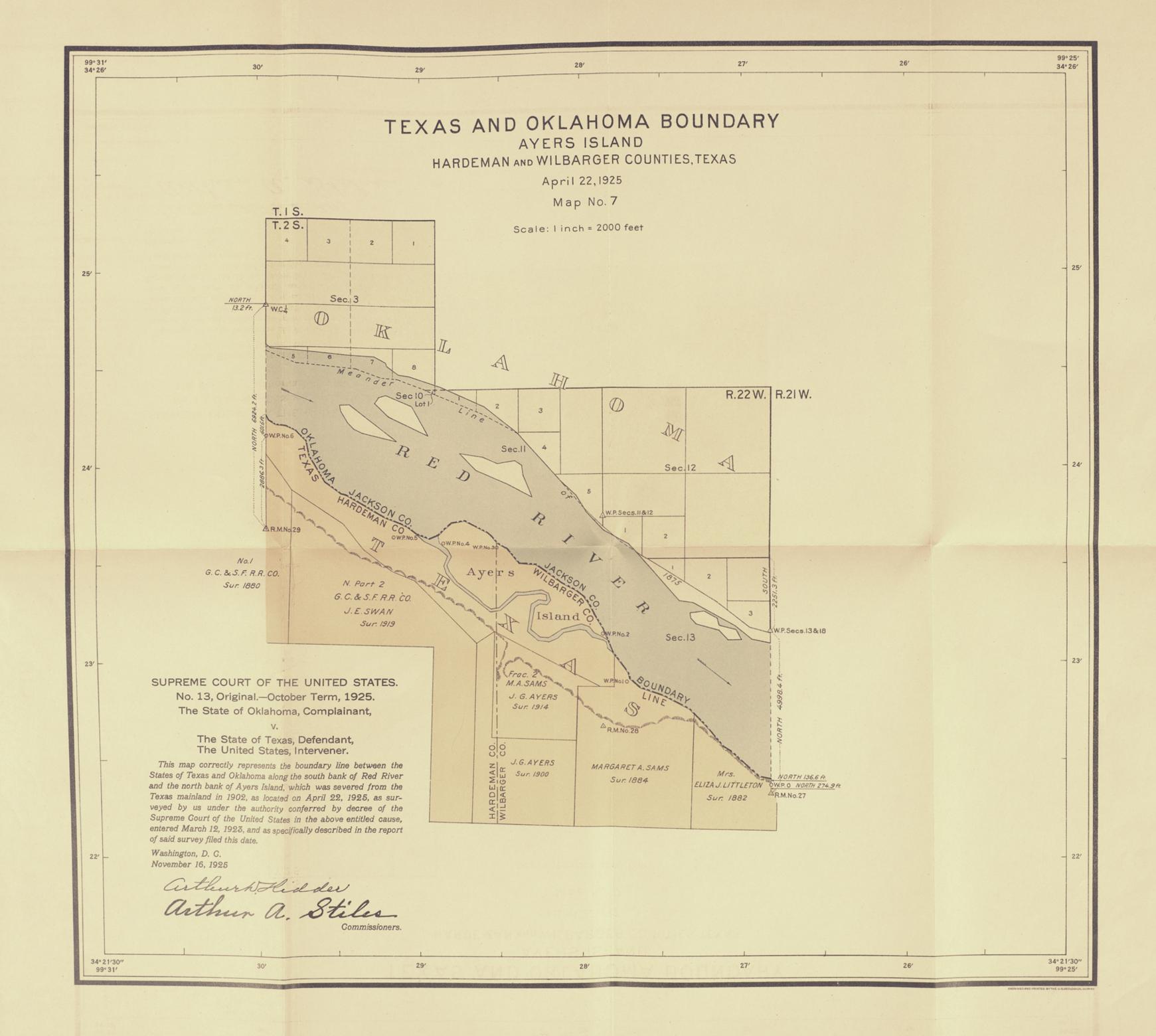
Azimuths and Lengths of Lines Connecting Reference Monuments and Witness Posts.

| Station. | Forward and back azimuth. | To station. | Distance. |
|---------------|---|----------------------------|-----------------------------|
| R. M. No. 27. | North | W. P. Secs. 13 and 18 | 4998.4 Ft. 75.733 Chs. |
| | North | W. P. "0" | 274.9 Ft. 4.165 Chs. |
| | N. 68° 20′ 40″ W. S. 68° 21′ 10″ E. | R. M. No. 28 | 5618.4 Ft. 85.128 Chs. |
| R. M. No. 28. | N. 60° 44′ 00″ E. S. 60° 44′ 30″ W. | W. P. Secs. 13 and 18 | 5985.7 Ft. 90.693 Chs. |
| | N. 27° 48′ 00″ E. S. 27° 48′ 00″ W. | W. P. No. 1 | 1581.8 Ft. 23.967 Chs. |
| | North | W. P. Secs. 11 and 12 | 6518.8 Ft. 98.770 Chs. |
| | North | W. P. No. 2 | 2893.6 Ft. 43.842 Chs. |
| | N. 41° $12'$ $50''$ W. S. 41° $13'$ $20''$ E. | W. P. No. 4 | 7600.6 Ft. 115.161 Chs. |
| | N. 59° 35′ 00″ W. S. 59° 36′ 10″ E. | R. M. No. 29 | 12199.6 Ft. 184.843 Chs. |
| R. M. No. 29. | S. 85° 15′ 10″ E. N. 85° 14′ 30″ W. | | 5532.5 Ft. 83.825 Chs. |
| | North | W. C. 1/4 Secs. 3 and 4 | 6924.2 Ft. 104.912 Chs. |
| | North | | 2886.3 Ft. 43.732 Chs. |
| | . S. 36° 43′ 40″ E. N. 36° 43′ 00″ W. | | 9227.5 Ft. 139.810 Chs. |

Azimuths and Lengths of Lines Connecting Reference Monuments and Witness Posts—Continued

| Station. | Forward and back azimuth. | To station. | Distance. |
|--------------------------|--|-------------|-----------------------------|
| | S. 57° 55′ 50″ E. N. 57° 54′ 40″ W. | | 12417.4 Ft. 188.143 Chs. |
| W. P. Secs. 11 and 12 | S. 80° 54′ 20″ W. N. 80° 53′ 40″ E. | W. P. No. 4 | 5068.0 Ft. 76.788 Chs. |
| | S. 55° 28′ 30″ E. N. 55° 27′ 50″ W. | | 6338.5 Ft. 96.038 Chs. |

Map No. 7, showing Ayers Island, is inserted here:



M. J. Moore Survey at mouth of Pease River. (No Map.)

Location:

Wilbarger County, Texas.

About 10 miles northeast of Vernon.

Texas Original Surveys: M. J. Moore and J. Hayman.

Tillman County, Oklahoma. About 15 miles southwest of Frederick. Opposite Sections 17 and 18, T. 4 S., R. 18 W.

Principal Witnesses:

Hon. J. T. Robison, Commissioner, Texas General Land Office, Austin, Texas.

H. L. Coleman, County Surveyor, Vernon, Texas.

A. C. Boger, Vernon, Texas.

Summary of Testimony:

The M. J. Moore Survey formerly covered a peninsula of the Texas mainland, just above the mouth of Pease River, projecting eastward and separating Pease River from Red River. To the westward, at the neck of the peninsula, the Moore Survey joined the J. Hayman Survey which extended well into Texas, between the two rivers. In June, 1914, the Red River, during a flood, cut a new channel through the base of the peninsula near the line between the two surveys and severed the eastern part of the peninsula, covered by the Moore Survey, from the Texas mainland. The land cut off was left intact as an island in the Red River sand bed. The Red River continued at normal stages to flow in the new channel south of the cut-off island. The new channel is about where the old channel of Pease River was before the cut-off. Pease River now joins the Red River farther upstream within the area of this former peninsula.

Field Work:-Conclusions.

After the hearing we went to this area and carefully examined the Texas cut bank, and the Red River sand bed from the mouth of Pease River down to the long trestle bridge of the Frisco Railroad that crosses Red River a short distance below the position of the M. J. Moore Survey. Walking across this bridge, we carefully examined the Oklahoma cut bank for a considerable distance opposite the two

Texas surveys mentioned. From the trestle bridge we got a perfect view of all the Red River sand bed from the bridge, upstream far beyond the new mouth of Pease River. We also walked and waded over much of the area now in the Red River sand bed where the

Moore Survey used to be.

The facts as we found them on the ground do not wholly agree with the information given at the hearing. We could find no island of any kind in the Red River sand bed within the limits of the M. J. Moore Survey, and we saw nothing to indicate that any fragment of the land in the Moore Survey now remains as an island in the Red River. There may have been an island there for a time after the cut-off occurred, but if so, it is all gone now.

We conclude that the erosion of the M. J. Moore Survey has been severe and complete, and that therefore the boundary line is on and along the south cut-bank of the Red River where the bank is now. As the bank is well defined from the crossing of the Frisco Railroad, upstream to the mouth of Pease River, and far beyond, we further conclude that the boundary line along it does not require to be sur-

veyed or marked out in this area.

III.

IN

HARDEMAN AND CHILDRESS COUNTIES, TEXAS,

OPPOSITE

Harmon and Jackson Counties, Oklahoma.

Public Hearing:

Quanah, Texas, April 14, 1925.

We found no avulsive changes in the position of the Red River in these counties and have made no surveys in them except at Ayers Island, which is described under Wilbarger County.

IV.

IN

CLAY COUNTY, TEXAS,

OPPOSITE

Cotton and Jefferson Counties, Oklahoma.

Public Hearings:

Henrietta, Texas, April 16 and 17, 1925.

We found no avulsive changes in the position of the Red River in this county and have made no surveys.

V.

IN

MONTAGUE COUNTY, TEXAS,

OPPOSITE

Jefferson County, Oklahoma.

Public Hearings:

Nocona, Texas, April 27, 1925. Montague, Texas, April 28, 1925.

We found no avulsive changes in the position of the Red River in this county and have made no surveys.

VI.

IN

COOKE COUNTY, TEXAS,

OPPOSITE

Love County, Oklahoma.

Public Hearing:

Gainesville, Texas, May 5, 1925.

Interested owners of property situated in Love County, Oklahoma, were requested by letter to attend the hearing in Cooke County, Texas. A number responded to the request, making it unnecessary to hold a separate hearing in Love County.

We have established the boundary along the Red River in this county in the Fish Creek area and at the Gainesville Toll Bridge over the Red River, described as follows:

Fish Creek Area. (Map No. 8.)

Location:

Cooke County, Texas.

About 15 miles northwest of Gainesville.

Texas Original Surveys:

J. W. Gibbins. S. Miller. M. E. P. A. P. R. R. Co. John Steele. John M. Swisher. Thomas Booker. Manuel Charo. Benjamin Scanland.

Love County, Oklahoma.
About 15 miles southwest of Marietta.
Opposite Secs. 3, 4, 9 and 10, T. 9 S., R. 1 E., and Sec. 34, T. 8 S., R. 1 E.

The testimony given at the hearing was that no avulsion had taken place in this area.

Field Work: - Conclusions.

The doubt about the location of the boundary here was first indicated upon the United States and Oklahoma Map Exhibit No. 37-7. We obtained no information about an avulsion in the area at the public hearings and we found it necessary to make a partial survey to ascertain the present position of the river, which we then closely compared with the former position as determined by the Oklahoma surveys made in 1898 and as graphically shown upon the Gainesville Topographic Quadrangle of the United States Geological Survey made by Commissioner Stiles in 1902, then a topographer in that Bureau. We were astonished at the extent and rapidity of the changes the river had made. It was obvious that a considerable area formerly in Oklahoma, subdivided in 1898, is now on the Texas side; and that considerable of the valley land in other parts of the area shown by the maps to be in Texas, is now on the Oklahoma side. Thorough study of the ground convinced us that all of these great changes had taken place by the natural and gradual process of erosion and accretion, and that there had been no avulsive cut-offs anywhere in the area.

We therefore conclude that the boundary line is on and along the present south cut-bank of the river; and in order to dispose of the conflicting surveys we have established and marked the boundary line on and along the present south (or right) cut-bank of the river throughout the area.

The position of the boundary line here is that which existed on May 27, 1925.

The field notes for this area follow:

Beginning at Reference Monument No. 30, on the Texas bluff, as

such monument is hereinafter defined, thence

East, on a westerly extension of the line between Sections 26 and 35, Township 8 South, Range 1 East, in Oklahoma, 2885.6 ft. (43.721 chs.) to Witness Post "0". This witness post is located on high timbered flood plain within the river valley.

Thence from Witness Post "0"

East, 235.6 ft. (3.569 chs.) to the south (west) or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank downstream with traverse of the

boundary on and along the cut bank:

S. 32° 07′ W., 910.8 ft. (13.80 chs.) S. 24° 48′ W., 653.4 ft. (9.90 chs.) S. 14° 50′ W., 640.2 ft. (9.70 chs.) S. 12° 45′ E., 554.4 ft. (8.40 chs.) S. 5° 25′ E., 567.6 ft. (8.60 chs.) S. 11° 35′ E., 389.4 ft. (5.90 chs.) S. 15° 55′ E., 858.0 ft. (13.00 chs.) S. 19° 01′ E., 343.2 ft. (5.20 chs.)

From this point Witness Post No. 1 bears S. 82° 41′ W., 368.6 ft.

(5.585 chs.) dist.

Thence from the above point on south (west) or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

> S. 23° 38′ E., 653.4 ft. (9.90 chs.) S. 30° 58′ E., 640.2 ft. (9.70 chs.) S. 28° 24' E., 660.0 ft. (10.00 chs.) S. 43° 08' E., 356.4 ft. (5.40 chs.) S. 39° 21′ E., 844.8 ft. (12.80 chs.) S. 32° 08′ E., 495.0 ft. (7.50 chs.) S. 26° 53′ E., 924.0 ft. (14.00 chs.) S. 19° 01' E., 778.8 ft. (11.80 chs.) S. 1° 55′ E., 627.0 ft. (9.50 chs.) S. 20° 23′ W., 363.0 ft. (5.50 chs.) S. 32° 44′ W., 1056.0 ft. (16.00 chs.) S. 44° 59′ W., 990.0 ft. (15.00 chs.) S. 40° 31′ W., 858.0 ft. (13.00 chs.) S. 30° 52′ W., 646.8 ft. (9.80 chs.) S. 32° 21′ W., 349.8 ft. (5.30 chs.)

From this point Witness Post No. 2 bears N. 42° 15′ W., 541.9 ft. (8.210 chs.) dist.

Thence from the above point on south (west) or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

S. 32° 59′ W., 367.6 ft. (5.57 chs.)
S. 7° 48′ W., 270.6 ft. (4.10 chs.)
S. 6° 16′ E., 184.8 ft. (2.80 chs.)
S. 36° 29′ E., 198.0 ft. (3.00 chs.)
S. 5° 33′ E., 184.8 ft. (2.80 chs.)
S. 7° 06′ W., 402.6 ft. (6.10 chs.)
S. 10° 43′ E., 745.8 ft. (11.30 chs.)
S. 25° 13′ E., 211.2 ft. (3.20 chs.)
S. 37° 06′ E., 159.7 ft. (2.42 chs.)

From this point

West, on a westerly extension of the line between Sections 10 and 15, Township 9 South, Range 1 East, in Oklahoma, 29.6 ft. (0.448 chs.) to Witness Post No. 3.

From Witness Post No. 3

West, 224.8 ft. (3.406 chs.) to Reference Monument No. 32 on Texas bluff, as such monument is hereinafter defined.

Description of Reference Monuments.

All reference monuments (abbreviated "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked by a heavy bronze tablet, inscribed as shown on page 18.

The reference monuments on the Oklahoma side are correlated with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diam., having a bronze cap, the post being placed full length in the concrete form described above. The monuments are appropriately marked according to the standard specifications of the General Land Office. They readily identify the position of the monument in the United States rectangular survey system.

Reference Monuments in Texas.

Reference Monument No. 30.

This station is on the latitudinal extension of the line between Sections 26 and 35, Township 8 South, Range 1 East, in Oklahoma, 13040.9 ft. (197.589 chs.) west of the ¼ sec. cor. between the above sections. The monument is located on top of the Texas bluff about ½ mile back from the river bank, and is approximately ½ mile northeast of the ranch house of J. E. and R. T. McDonald, on whose land the monument is located. The station is about 14 miles north and

4½ miles west of Gainesville, Cooke County, Texas, from which place it may be conveniently reached by wagon road.

Latitude, 33° 49′ 27.017″. Longitude, 97° 12′ 44.906″.

Reference Monument No. 31.

This monument is located on top of the Texas bluff overlooking Red River valley, on pasture land of J. E. and R. T. McDonald, from which point the McDonald ranch house bears approximately west, ½ mile distant. This station is about 14 miles north and 4½ miles west of Gainesville, Cooke County, Texas, from which place it may be conveniently reached by road.

Latitude, 33° 48′ 57.736″. Longitude, 97° 12′ 23.681″.

Reference Monument No. 32.

This station is located on the latitudinal extension of the line between Sections 10 and 15, Township 9 South, Range 1 East, in Oklahoma, 3292.4 ft. (49.885 chs.) west of the witness ¼ sec. cor. between Sections 10 and 15. The monument is located on top of the Texas bluff overlooking Red River valley, on land now belonging to W. B. Burkhart. The Burkhart ranch house bears approximately west ¼ mile dist. The station is about 11 miles north and 4½ miles west of Gainesville, Cooke County, Texas, from which place it may be conveniently reached by road into the Burkhart ranch.

Latitude, 33° 46′ 50.187″. Longitude, 97° 12′ 10.514″.

Reference Monuments in Oklahoma.

W. C. 1/4 Secs. 26 and 35.

This monument is located on top of a level cultivated bench 301.0 ft. west of the ¼ sec. cor. bet. Secs. 26 and 35, T. 8 S., R. 1 E., and 1½ miles west and 2 miles north of Thackerville, Love County, Oklahoma, from which place it may be conveniently reached by road.

Latitude, 33° 49′ 27.017″. Longitude, 97° 10′ 13.926″.

1/4 Sec. Cor. Secs. 10 and 15.

This station is located about one-half way down the steep, wooded Oklahoma bluff, facing west, on land owned by W. B. Burkhart. House on the Burkhart ranch, occupied by T. E. Beavers, bears southeast, approximately 792 feet (12.00 chs.) dist. The station is about 1 mile south and 2½ miles west of Thackerville, Love County,

Oklahoma, from which place it may be conveniently reached by road.

From the monument:

A post oak, 20 ins. diam., bears S. 63° 15′ E., 35 ft. (53 lks.) dist., marked ¼ S 15 B T.

A post oak, 20 ins. diam., bears N. 46° E., 30.4 ft. (46 lks.) dist., marked ¼ S 10 B T.

Latitude, 33° 46′ 50.187″. Longitude, 97° 11′ 13.243″.

W. C. 1/4 Secs. 10 and 15.

This monument is located on a grassy flood plain within the river valley on a westerly extension of the line between Sections 10 and 15. T. 9 S., R. 1 E., 1540.2 feet (23.337 chs.) from the ¼ sec. cor. between Sections 10 and 15 of that township. The station is 1 mile south and 2¾ miles west of Thackerville, Love County, Oklahoma, from which place it may be conveniently reached by road.

From the monument:

A cottonwood, 12 ins. diam., bears S. 83° 15′ E., 147.2 ft. (2.23 chs.) dist., marked W P $\frac{1}{4}$ S 15 B T.

Latitude, 33° 46′ 50.187″. Longitude, 97° 11′ 31.496″.

Description of Witness Posts.

The witness posts are all rough pine, creosoted. Most of the posts are 5 ft. 6 ins. long, and about 6 ins. diameter, set 36 ins. in the ground. The part of each post above ground is squared, and painted white. The posts are numbered downstream. The initial post "0" marks the upper limit, the terminal post, No. 3, marks the lower limit of the area. The numbers are stamped in the tops of the posts; they are also stenciled on the sides, as follows:

Tex.-Okla. Bdy. (on side toward the river); Witness Post (on side downstream);

U. S. Supreme Court (on side upstream); and,

Number (on side opposite the river).

Bearing Trees.

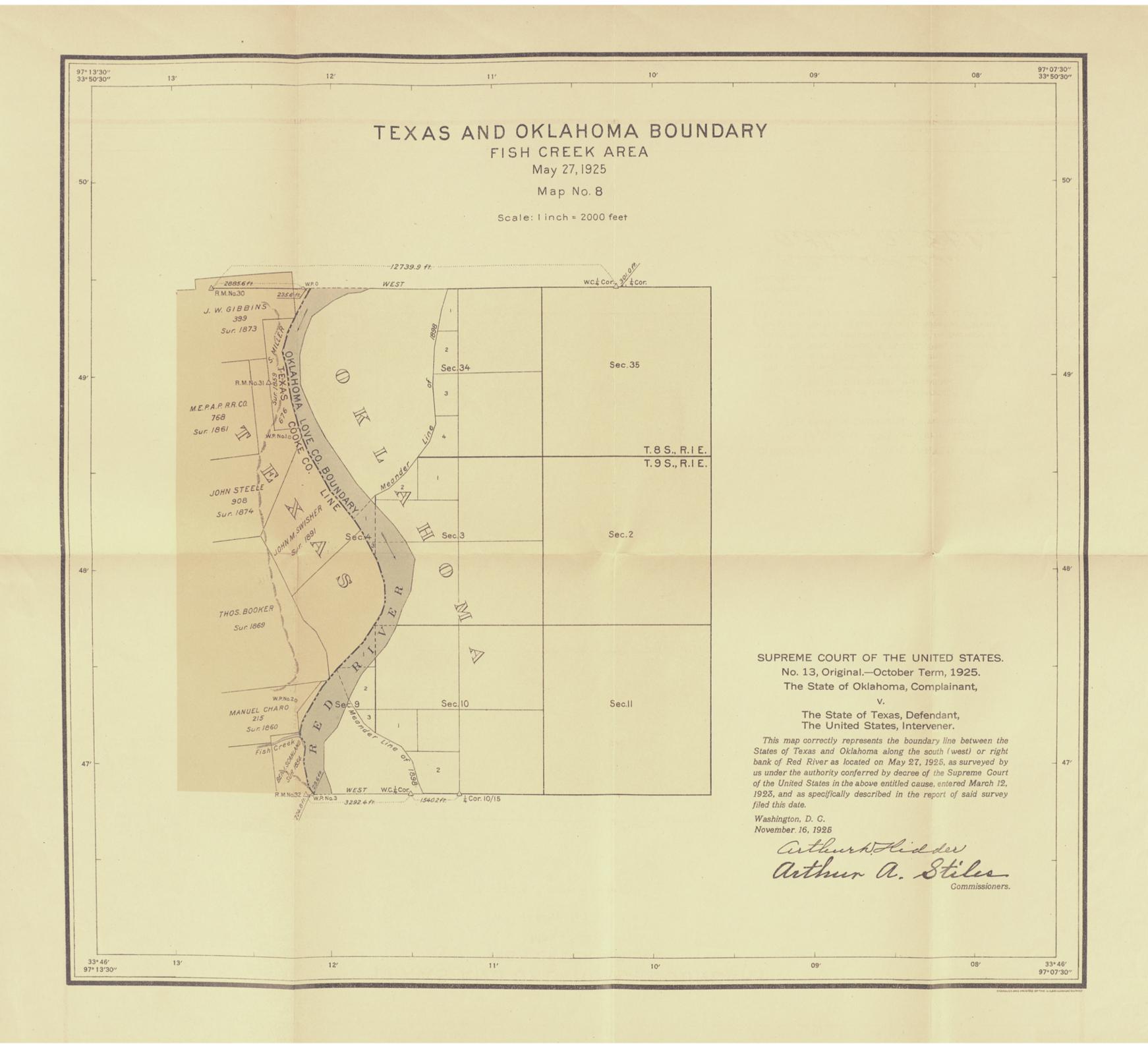
The following table identifies bearing trees which were employed as accessories to witness posts. The bearing trees were blazed and scribed in the usual manner practiced by surveyors; the marks include the serial number of the post to which the tree refers:

| Post. Trees. Diam. Bearings. | Dist. |
|--|-------|
| No. 0 Post oak 38 ins. S. 80° 30′ | |
| No. 1 Cottonwood 6 ins. N. 69° 30′ | |
| No. 2 Elm 8 ins. N. 4° 15′ No. 3 Elm 16 ins. S. 23° 30′ | |
| No. 3 Elm 16 ins. S. 23° 30′ " " Red oak 14 ins. S. 70° 00′ | |

Azimuths and Lengths of Lines Connecting Reference Monuments and Witness Posts.

| Forward Station. and back azim | | Distance. |
|--|-----|-----------------------------|
| R. M. No. 30 East | | 12739.9 Ft. 193.029 Chs. |
| East West | | 2885.6 Ft. 43.721 Chs. |
| S. 31° 10′ 20′ N. 31° 10′ 10 | | 3460.4 Ft. 52.430 Chs. |
| R. M. No. 31 N. 74° 52′ 10 S. 74° 53′ 20′ | | 11342.3 Ft. 171.853 Chs. |
| S. 20° 38′ 10′ N. 20° 38′ 10 | | 1824.3 Ft. 27.641 Chs. |
| S. 4° 56′ 00′ N. 4° 55′ 50 | | 12940.6 Ft. 196.069 Chs. |
| R. M. No. 32 N. 5° 51′ 20 S. 5° 51′ 20′ | | 2968.1 Ft. 44.971 Chs. |
| N. 31° 49′ 10 S. 31° 50′ 10′ | | 18657.7 Ft. 282.693 Chs. |
| East West | | 224.8 Ft. 3.406 Chs. |
| East West | | 3292.4 Ft. 49.885 Chs. |
| East West | 7.2 | 4832.7 Ft. 73.222 Chs. |

Map No. 8, showing Fish Creek area, is inserted here:



Gainesville Toll Bridge over Red River.

(No Map.)

Location:

Cooke County, Texas.

About 10 miles north of Gainesville, on Texas State Highway
No. 40.

Love County, Oklahoma. About 15 miles south of Marietta.

At the request of Hon. George W. Dayton, County Judge of Cooke County, Texas, we went to this place and carefully examined the Red River at the bridge. We found that the south cut bank of the river is well defined at this bridge and that the boundary line on and along it is coincident with the lateral axis of the southernmost concrete pier of the bridge supporting the south end of the southernmost steel truss. There are five trestle bents between the concrete pier and the southern abutment of the bridge. The trestling is all in Texas; the steel trusses are all in Oklahoma. We then made a red paint cross-mark on each side of the pier in the center of the top, to indicate the exact position of the boundary line as it existed at this bridge on May 5, 1925.

VII.

IN

GRAYSON COUNTY, TEXAS,

OPPOSITE

Marshall and Bryan Counties, Oklahoma.

Public Hearing: Sherman, Texas, May 7, 1925.

We found no avulsive changes in the position of the Red River in this county and have made no surveys.

VIII.

IN

FANNIN COUNTY, TEXAS,

OPPOSITE

Bryan County, Oklahoma.

Public Hearings:

Bonham, Texas, May 7, 11, 12 and 22, 1925. Durant, Oklahoma, June 1, 1925.

We have established the boundary along the Red River in this county in three areas, Murphy Creek, Popes Point and Grubbs Lake. We have also considered the location of the boundary at Blum Lake. These areas are described as follows:

Murphy Creek Area.

(Map No. 9.)

Location:

Fannin County, Texas.

About 15 miles northwest of Bonham.

Texas Original Surveys:

N. T. Journey. Joseph Jeffries. Joseph Murphy. William Cottle. William Martin. Silas Cox. Jesse Wallace.

Bryan County, Oklahoma. About 25 miles southeast of Durant. Opposite Sections 1, 2, 10 and 11, T. 10 S., R. 9 E.

Principal Witnesses:—Interviewed at their homes.

T. J. Taylor, Route 2, Ravenna, Fannin County, Texas. Matthew L. Taylor, Route 1, Savoy, Fannin County, Texas.

Summary of Testimony:

Little information about this area developed at the public hearings in Bonham, but we were referred to the two oldest residents of the neighborhood, both having the same name but not related, Mr.

T. J. Taylor of Ravenna, Texas, who has lived since 1880 on the Texas bluff overlooking the river in this area; and Mr. Matthew L. Taylor of Savoy, Texas, a venerable county surveyor who has lived near by since 1870. We interviewed both of these esteemed old settlers separately. The information they gave was fully corroborative and was, briefly, that the Red River had changed its position in this area very much since they first knew it, but that it had made the changes by natural and gradual processes requiring a number of years, making the greatest change, however, during the flood of 1908; that the river had come gradually to its present position near the foot of the bluffs on the Texas side; and that there had been no avulsive changes in the river anywhere in this vicinity.

Field Work: - Conclusions.

This area appears on the United States and Oklahoma Map Exhibit No. 37-11, showing widely separated old and new positions of the Red River. Part of the area has been surveyed in both States, and part of it has not been surveyed in either State. Upon examining the ground thoroughly we found to the north of the river well-defined escarpments indicating former positions of the river, some of great age, and all of very different ages, as shown by trees and stumps which we examined. We find that the facts on the ground support the statements of the two well-informed old residents whom we interviewed.

We conclude that there has been no avulsion in this area; that the river has changed its position entirely by erosion and accretion; and that the boundary is on and along the present south cut-bank of the Red River. But to dispose of the doubt that has prevailed about the boundary line here, especially concerning the conflicting surveys, we have established and marked it throughout the area.

The position of the boundary line here is that which existed on

May 25, 1925.

The field notes for this area follow:

Beginning at Reference Monument No. 33 on the Texas upland,

as such monument is hereinafter defined, thence

North, on a southerly extension of the line between Sections 9 and 10, Township 10 South, Range 9 East, in Oklahoma, 1029.6 ft. (15.600 chs.) to Witness Post "0". This witness post is located on the flood plain within the river valley.

Thence from Witness Post "0"

North, 132.0 ft. (2.00 chs.) to the south or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank downstream with traverse of the

boundary on and along the cut bank:

S. 54° 00' E., 301.0 ft. (4.56 chs.)

S. 63° 04' E., 957.0 ft. (14.50 chs.)

S. 74° 42' E., 435.6 ft. (6.60 chs.)

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S. 81° 30' E., 151.8 ft. (2.30 chs.)
S. 72° 29' E., 257.4 ft. (3.90 chs.)
S. 68° 55′ E., 316.8 ft. (
                          4.80 chs.)
S. 71° 14′ E., 429.0 ft. ( 6.50 chs.)
S. 85° 00′ E., 158.4 ft. ( 2.40 chs.)
S. 78° 50′ E., 297.0 ft. (4.50 chs.)
S. 68° 23′ E., 349.8 ft. (5.30 chs.)
S. 67° 21′ E.; 521.4 ft. (7.90 chs.)
S. 74° 16′ E., 330.0 ft. (5.00 chs.)
S. 76° 36′ E., 442.2 ft. (6.70 chs.)
S. 82° 53′ E., 250.8 ft. ( 3.80 chs.)
S. 80° 22′ E., 257.4 ft. ( 3.90 chs.)
S. 82° 36′ E., 693.0 ft. (10.50 chs.)
S. 77° 20′ E., 640.2 ft. ( 9.70 chs.)
S. 89° 13' E., 260.7 ft. ( 3.95 chs.)
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From this point Witness Post No. 1 bears S. 10° 33' W., 29.7 ft.

(45 lks.) dist.

Thence from the above point on south or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

S. 83° 23′ E., 547.8 ft. (8.30 chs.) N. 88° 35′ E., 528.0 ft. (8.00 chs.) N. 79° 42′ E., 554.4 ft. (8.40 chs.) N. 84° 06′ E., 457.2 ft. (7.20 chs.) N. 70° 10′ E., 99.0 ft. (1.50 chs.) N. 74° 25′ E., 178.2 ft. (2.70 chs.) N. 76° 41′ E., 429.0 ft. (6.50 chs.) N. 80° 08′ E., 415.8 ft. (6.30 chs.) N. 68° 53′ E., 310.2 ft. (4.70 chs.) N. 59° 12′ E., 303.6 ft. (4.60 chs.) N. 62° 20′ E., 132.0 ft. (2.00 chs.) N. 65° 00′ E., 435.6 ft. (6.60 chs.) N. 45° 50′ E., 132.0 ft. (2.00 chs.) N. 55° 50′ E., 603.9 ft. (9.15 chs.) N. 45° 14′ E., 345.2 ft. (5.23 chs.) N. 43° 14′ E., 149.8 ft. (2.27 chs.) N. 53° 14′ E., 369.6 ft. (5.60 chs.) N. 49° 00' E., 151.8 ft. (2.30 chs.) N. 53° 36′ E., 290.4 ft. (4.40 chs.) N. 54° 04′ E., 158.4 ft. (2.40 chs.)

From this point Reference Monument No. 34 bears N. 83° 57′ E., 363.0 ft. (5.50 chs.) dist.

Thence from the above point on the south or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

N. 48° 24′ E., 237.6 ft. (3.60 chs.)
N. 50° 07′ E., 567.6 ft. (8.60 chs.)
N. 28° 11′ E., 488.4 ft. (7.40 chs.)
N. 31° 18′ E., 528.0 ft. (8.00 chs.)
N. 34° 29′ E., 409.2 ft. (6.20 chs.)
N. 22° 58′ E., 910.8 ft. (13.80 chs.)
N. 25° 53′ E., 151.8 ft. (2.30 chs.)
N. 34° 02′ E., 429.0 ft. (6.50 chs.)
N. 30° 50′ E., 409.2 ft. (6.20 chs.)
N. 35° 03′ E., 178.2 ft. (2.70 chs.)
N. 25° 37′ E., 686.4 ft. (10.40 chs.)
N. 26° 18′ E., 415.8 ft. (6.30 chs.)

From this point Witness Post No. 2 bears S. 63° 48' E., 75.9 ft. (1.15 chs.) dist.

Thence from the above point on the south or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

N. 18° 13′ E., 627.0 ft. (9.50 chs.)
N. 19° 05′ E., 264.0 ft. (4.00 chs.)
N. 20° 14′ E., 330.0 ft. (5.00 chs.)
N. 15° 21′ E., 594.0 ft. (9.00 chs.)
N. 14° 05′ E., 594.0 ft. (9.00 chs.)
N. 9° 02′ E., 349.8 ft. (5.30 chs.)
N. 20° 52′ E., 244.2 ft. (3.70 chs.)
N. 11° 22′ E., 349.8 ft. (5.30 chs.)
N. 14° 01′ E., 561.0 ft. (8.50 chs.)
N. 0° 43′ W., 125.4 ft. (1.90 chs.)
N. 8° 36′ E., 217.8 ft. (3.30 chs.)
N. 12° 57′ E., 468.6 ft. (7.10 chs.)
N. 7° 50′ E., 217.8 ft. (3.30 chs.)
N. 11° 53′ E., 254.1 ft. (3.85 chs.)

From this point Witness Post No. 3 bears East, 63.4 ft. (96.0 lks.) dist.

From Witness Post No. 3

East, on an easterly extension of the line between Sections 1 and 36, Townships 9 and 10 South, Range 9 East, in Oklahoma, 917.4 ft. (13.90 chs.) to Reference Monument No. 35 on Texas upland, as such monument is hereinafter defined.

Description of Reference Monuments.

All reference monuments (abbreviated "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked by a heavy bronze tablet, inscribed as shown on page 18.

The reference monuments on the Oklahoma side are correlated with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diam., having a bronze cap, the post being placed full length in the concrete form described above. The monuments are appropriately marked according to the standard specifications of the General Land Office. They readily identify the position of the monument in the United States rectangular survey system.

Reference Monuments in Texas.

Reference Monument No. 33.

This station is on the meridional extension of the line between Sections 9 and 10, Township 10 South, Range 9 East, in Oklahoma, 5732.1 ft. (86.85 chs.) south of the corner of Sections 3, 4, 9 and 10 of the above township. The monument is located on top of an escarpment, on land owned by a Mr. Brown, and in brush along the north edge of Mr. Brown's field. It is 50 lks. southwest of an old road leading from Ambrose Ferry, about ¼ mile southeast of the ferry; N. 5¼° W., 4818 feet (73.00 chs.) from railroad crossing at Anthony; 8 miles north of Savoy; and 20 miles northwest of Bonham, all in Fannin County, Texas.

Reference Monument No. 34.

This station is located on top of the Texas bluff overlooking Red River on land of T. J. Taylor in the Murphy Survey. The monument is 218 ft. (3.30 chs.) west of the line between the Murphy and Jeffries Surveys; about 730 feet east of the mouth of Murphy Creek; 34 mile northwest of Taylor's house; 6 miles northwest of Ravenna; and 15 miles northwest of Bonham, all in Fannin County, Texas.

Reference Monument No. 35.

This station is on the latitudinal extension of the line between Sections 1 and 36, Townships 9 and 10 South, Range 9 East, in Oklahoma, 4449.7 feet (67.42 chs.) east of the ¼ section corner between Sections 1 and 3; of the above townships. The monument is located on land belonging to Mrs. Ewing in the N. T. Journey Survey, in fence line forming the northern boundary of cultivated

field, about 170 feet east of the northwest corner of the field; 1 mile almost due west of the village of Mulberry; 7 miles northwest of Ravenna; and 16 miles northwest of Bonham, all in Fannin County, Texas.

From the monument:

A sycamore, 36 ins. diameter, bears N. 65° W., 95 ft. dist. (The only sycamore in sight.)

The mouth of Caney Creek bears S. 40° W. 1900 feet dist.

Reference Monuments in Oklahoma.

W. C. Secs. 3, 4, 9 and 10.

This monument is located 6.6 feet (10 lks.) south of the corner of Sections 3, 4, 9 and 10, Township 10 South, Range 9 East, at the corner of fences bearing north, south and east. This point is approximately 3 miles south and ½ mile west of Kemp, Bryan County, Oklahoma, from which place it may be reached by way of the Kemp and Ambrose Ferry road.

1/4 Sec. Cor. Secs. 1 and 36.

This monument is located at the ¼ section corner between Sections 1 and 36, Townships 9 and 10 South, Range 9 East, in a fence line bearing east and west. The point is approximately 2 miles south and 3 miles east of Kemp, Bryan County, Oklahoma.

Description of Witness Posts.

All posts are sawed bois d'arc. Most of the posts are 6 ft. long, and about 4 ins. square, set 42 ins. in the ground. The part of each post above ground is painted white. The posts are numbered downstream. The initial post "0" marks the upper limit of the area. The numbers are stamped in the tops of the posts and are also stenciled on the sides, as follows:

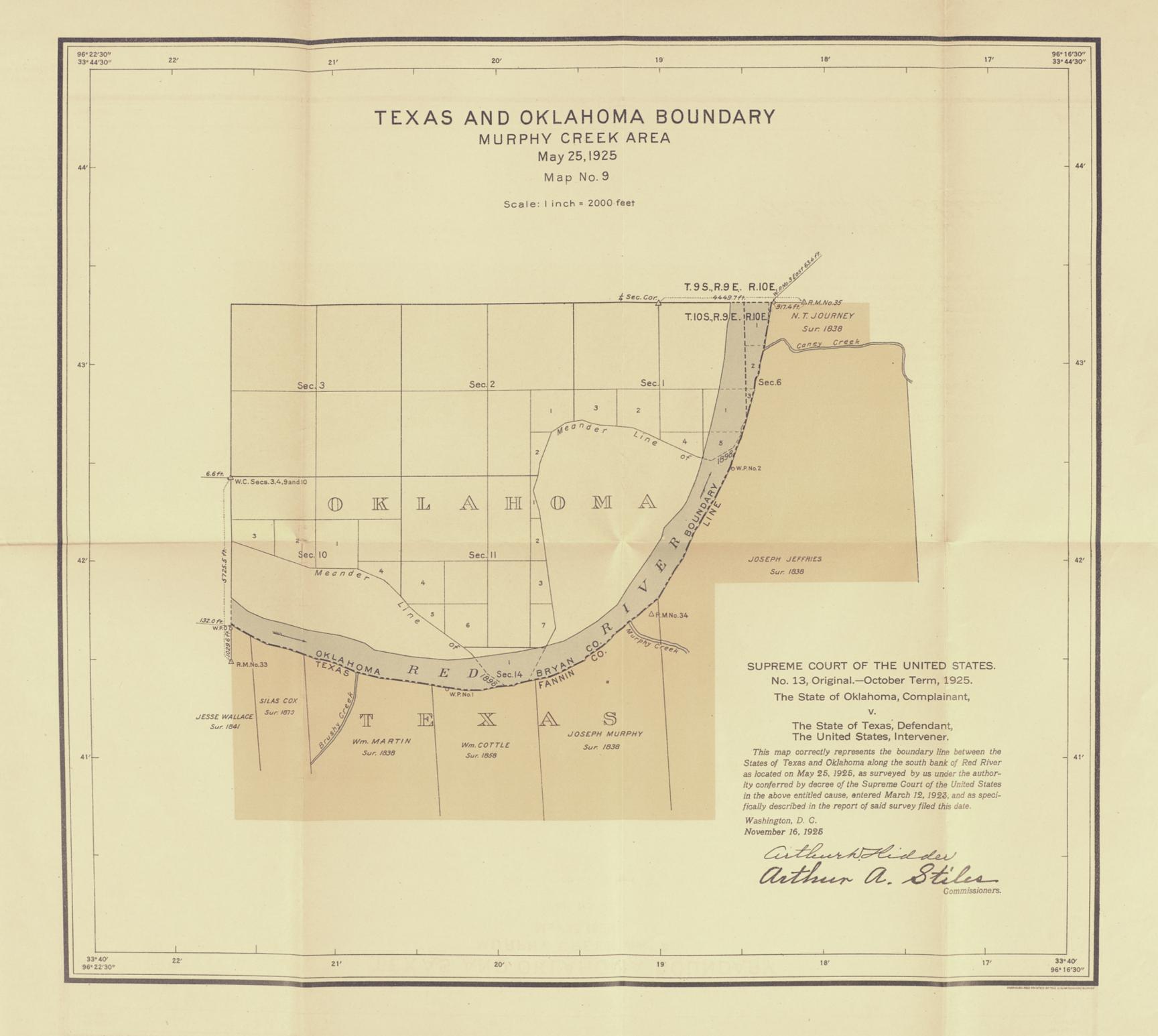
Tex.-Okla. Bdy. (on side toward the river); Witness Post (on side downstream); U. S. Supreme Court (on side upstream); and, Number (on side opposite the river).

Bearing Trees.

The following table identifies bearing trees which were employed as accessories to witness posts. The bearing trees were blazed and scribed in the usual manner practiced by surveyors; the marks include the serial number of the post to which the tree refers:

| Post. | Trees. | Diam. | Bearings. | Dist. |
|---------|------------|---------|---------------|------------|
| No. "0" | Bois d'arc | 5 ins. | S. 73° 00′ W. | 13.9 ft. |
| | Mulberry | 5 ins. | N. 58° 15′ E. | 23.8 ft. |
| No. 1 | Box elder | 8 ins. | S. 46° 45′ E. | 29.7 ft. · |
| | Willow | 16 ins. | S. 82° 00′ W. | 21.1 ft. |
| No. 2 | Elm | 4 ins. | N. 76° 15′ E. | 41.6 ft. |
| | Cottonwood | 12 ins. | West | 25.1 ft. |

Map No. 9, showing Murphy Creek area, is inserted here:



Popes Point. (Map No. 10)

Location:

Fannin County, Texas. About 16 miles north of Bonham.

> Original Texas Survey: Jabez Fitzgerald

Bryan County, Oklahoma. About 25 miles southeast of Durant. Opposite Fractional Sections 32 and 33, T. 8 S., R. 11 E., and Fractional Sections 4 and 5, T. 9 S., R. 11 E.

Principal Witnesses:

R. H. Trimble, Bonham, Texas.
J. E. Dupree, Ravenna, Fannin County, Texas.
W. C. Taylor, Bonham, Texas.
J. F. Hendrix, Bonham, Texas.
G. A. Green, Route 5, Bonham, Texas.
Wilson L. Townsend, Durant, Oklahoma.
Claude C. Hatchet, Durant, Oklahoma.

Summary of Testimony:

Popes Bend was once the main channel of the Red River. The bend was wide at first, but erosion and accretion at the point of the bend lengthened it; and erosion on both Texas banks at the neck of the bend narrowed it until, at the neck, it was less than a quarter of a mile wide, though the bend was three miles around. The land inside of the bend was a narrow projection of the Texas mainland, pointing southwestward into what is now the State of Oklahoma. The Jabez Fitzgerald Survey, the title to which runs back to the Republic of Texas, covered all the land in the bend and extended well to the eastward into the uplands of Texas. During a flood in 1885 a mass of drifting trees and logs accumulated in the river channel just below the neck of the bend and formed there what is called a river "raft." This obstruction in the bend caused the flood water to burst through the narrow strip of land at the neck of the bend, and Popes Bend was cut off from the river by a new channel made where the narrow strip of land was. The river continued to flow through the new channel, gradually making it larger, and abandoned its former main channel around Popes Bend. The land cut off has since been known as Popes Point. It was not otherwise injured by the flood that cut it off; and the owner, fording across the new channel with his cattle, continued to use it. Blue Lake, now on the property, was not there before the cut-off, but has been formed since. Taxes upon the land in Popes Point have always been assessed by Texas and never by Oklahoma. The land has never been claimed as being in Oklahoma.

Field Work: -- Conclusions.

Going over the area involved, we found that the evidence on the ground fully corroborates the information given at the hearing, and plainly shows where Popes Bend was cut off by Red River. We found that since the cut-off occurred the river has moved by the natural and gradual processes of erosion and accretion a considerable distance to the east, away from the cut-off. The old channel around Popes Point, abandoned by the river, is easily followed on the ground except for a short distance where both old high banks were destroyed by the flood of 1908. The old channel is largely filled with earth deposited by the river, and the accretions attaching to both high banks meet in the middle of the channel except at two small lakes or ponds that remain. Thickets of young willows, cottonwoods, underbrush and vines fill the old channel except at the two small lakes. The present bottom of the old channel is much higher than the sand bed of the river adjacent.

We conclude that as a result of the accretions the boundary follows the medial line of the old channel, and along the south side of the two small lakes, and we have established and marked it there. In the short spaces where both old banks were destroyed by the flood of 1908, we determined the position of the old Oklahoma bank as given in the United States land surveys made in 1898, which we retraced in other parts of the bend and found accurate. From this position of the Oklahoma bank we measured, in the appropriate direction, one-half the average width of the old channel, ascertained close by, and thus located the boundary line in these missing spaces.

In establishing the boundary across the area formed by accretion between the old position of the river at the cut-off and where the river is now, we concluded to apply the usual rule of proportion, whereby the old river front is compared with the present one. Making use again of the United States land surveys just mentioned, as the best available information, we obtained the position of the river front in 1898, which was not many years after the cut-off occurred. The old meander line and the present bank cross each other in two places. shown on the map at points "C" and "D," one a short distance above the cut-off and the other a short distance below the cut-off. The two ends of the medial line coming out of the old channel at the cut-off are two intermediate points on the old river-front line, shown on the map at points "A" and "B." Between them is the Jabez Fitzgerald Survey in Texas. We measured the length of the old river bank and located these two intermediate points on it. Then we measured the length of the present river bank and established in exactly the same proportion two new intermediate points on it, as shown on the map at points "E" and "F." Then we connected by straight lines

the upper old and new points ("A" and "E") and the lower old and new points ("B" and "F"). These two straight lines form the boundary across the area of accretion. From the two new points on the present river-front line, we ran the boundary line across the sand bed and the flowing water of the river and extended it for suitable distances up and down the river on and along the present south (or right) cut-bank.

The position of the boundary line here is that which existed on

June 3, 1925.

The field notes of this area follow:

Beginning at Reference Monument No. 36 on the Texas upland,

as such monument is hereinafter defined, thence

West, on an easterly extension of the line between Sections 4 and 9, Township 9 South, Range 11 East, in Oklahoma, 4044.5 ft. (61.28 chs.) to Witness Post "0". This witness post is located on the flood plain within the river valley.

Thence from Witness Post "0".

West, 444.2 ft. (6.73 chs.) to the south or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank downstream with traverse of

the boundary on and along the cut bank:

N. 45° 56′ E., 831.6 ft. (12.60 chs.)

N. 52° 04′ E., 970.2 ft. (14.70 chs.) N. 60° 07′ E., 1141.8 ft. (17.30 chs.)

N. 62° 58′ E., 1484.3 ft. (22.49 chs.)

N. 67° 45′ E., 1484.3 ft. (22.49 cns.) N. 67° 45′ E., 1287.7 ft. (19.51 chs.)

N. 6° 30′ E., 472.6 ft. (7.16 chs.)

N. 7° 29' E., 669.2 ft. (10.14 chs.)

N. 7° 01' E., 356.4 ft. (5.40 chs.)

N. 15° 30' E., 301.0 ft. (4.56 chs.)

N. 14° 41' E., 810.5 ft. (12.28 chs.)

N. 6° 35' E., 351.1 ft. (5.32 chs.)

From this point Witness Post No. 1 bears S. 77° 26' E., 136.6 ft.

(2.07 chs.) dist.

Thence from the above point on south or right bank of river the boundary crosses to point "E" on present north (west) or left bank of river, as heretofore described

N. 51° 01′ W., 1063.3 ft. (16.11 chs.)

Thence from point "E" the boundary crosses accretion area:

N. 82° 51′ W., 155.1 ft. (2.35 chs.) to Post 2; 709.5 ft. (10.75 chs.) to Post 3;

1204.5 ft. (18.25 chs.) to Post 4;

1699.5 ft. (25.75 chs.) to Post 5;

2194.5 ft. (33.25 chs.) to Post 6.

Post 6 is coincident with point "A" heretofore described, in medial line of the 1885 channel.

Thence from point "A" the boundary follows the medial line of

the 1885 channel:

```
N. 75° 01′ W., 290.7 ft. (4.405 chs.) to Post 7;
N. 89° 58′ W., 973.0 ft. (14.742 chs.) to Post 8;
               497.0 ft. ( 7.530 chs.) to Post 9;
S. 70° 09' W.,
               923.0 ft. (13.985 chs.) to Post 10;
S. 33° 04′ W.,
                716.1 ft. (10.850 chs.) to Post 11;
S. 22° 58′ W.,
                633.1 ft. ( 9.592 chs.) to Post 12;
S. 15° 49′ W.,
                635.4 ft. ( 9.628 chs.) to Post 13;
S. 11° 34' W.,
                747.1 ft. (11.320 chs.) to Post 14;
S. 10° 43' W.,
S. 32° 40′ W.,
                868.6 ft. (13.160 chs.) to Post 15;
S. 71° 29' W.,
                733.1 ft. (11.108 chs.) to Post 16;
               890.3 ft. (13.490 chs.) to Post 17;
N. 69° 59′ W.,
                773.5 ft. (11.720 chs.) to Post 18;
N. 42° 03′ W.,
                864.3 ft. (13.095 chs.) to Post 19;
N. 26° 31′ W.,
N. 15° 13′ W.,
                718.1 ft. (10.880 chs.) to Post 20;
                976.8 ft. (14.800 chs.) to Post 21;
N. 21° 06′ W.,
N. 17° 29′ E.,
                560.3 ft. ( 8.490 chs.) to Post 22;
                512.8 ft. (7.769 chs.) to Post 23;
N. 24° 16' E.,
                526.1 ft. (7.971 chs.) to Post 24;
N. 30° 23′ E.,
N. 47° 42′ E.,
                559.7 ft. ( 8.481 chs.) to Post 25;
                583.8 ft. ( 8.845 chs.) to Post 26;
S. 74° 37′ E.,
N. 79° 56′ E.,
                340.2 ft. (5.155 chs.) to Post 27;
                364.3 ft. (5.520 chs.) to Post 28;
N. 71° 36′ E.,
N. 50° 40′ E.,
                701.3 ft. (10.625 chs.) to Post 29;
               480.5 ft. (7.280 chs.) to Post 30;
N. 61° 49′ E.,
N. 66° 06′ E., 879.1 ft. (13.319 chs.) to Post 31;
S. 84° 28′ E., 1100.7 ft. (16.678 chs.) to Post 32;
N. 60° 54' E., 428.3 ft. ( 6.489 chs.) to Post 33;
N. 75° 59′ E., 705.9 ft. (10.695 chs.) to Post 34.
```

Post 34 is coincident with point "B" heretofore described. Thence from point "B" the boundary crosses accretion area:

```
S. 74° 13′ E., 792.0 ft. (12.000 chs.) to Post 35;
1669.5 ft. (25.295 chs.) to Post 36;
2301.8 ft. (34.875 chs.) to Post 37;
2499.7 ft. (37.875 chs.) to a point.
```

The above point is located on the present north (west) or left bank of river and is coincident with point "F" heretofore described. Thence from point "F" the boundary crosses to south or right bank of river

N. 42° 59' E., 964.9 ft. (14.62 chs.)

From the latter point Witness Post No. 38 bears S. 56° 12' E.,

157.7 ft. (2.39 chs.) dist.

Thence from the above point on south or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

N. 8° 27′ W., 936.5 ft. (14.19 chs.) N. 17° 05′ W., 932.6 ft. (14.13 chs.) N. 4° 56′ E., 574.9 ft. (8.71 chs.) N. 12° 10′ E., 999.2 ft. (15.14 chs.) N. 29° 09′ E., 1214.4 ft. (18.40 chs.) N. 40° 14′ E., 596.0 ft. (9.03 chs.) N. 75° 29′ E., 1246.1 ft. (18.88 chs.) S. 78° 29′ E., 612.5 ft. (9.28 chs.) S. 84° 26′ E., 856.0 ft. (12.97 chs.) S. 78° 37′ E., 457.4 ft. (6.93 chs.)

From this point Witness Post No. 39 bears South, 349.1 ft. (5.290 chs.) dist.

From Witness Post No. 39

South, on a southerly extension of the line between Sections 26 and 27, Township 8 South, Range 11 East, in Oklahoma, 3860.0 ft. (58.485 chs.) to Reference Monument No. 37 on the Texas upland, as such monument is hereinafter defined.

Description of Reference Monuments.

All reference monuments (abbreviated: "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked by a heavy bronze tablet, inscribed as shown on page 18.

The reference monuments on the Oklahoma side are correlated with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diameter, having a bronze cap, the post being placed full length in the concrete form, described above. These monuments are appropriately marked according to the standard specifications of the General Land Office. They readily identify the position of the monument in the United States rectangular survey system.

Reference Monuments in Texas.

Reference Monument No. 36.

This station is on the latitudinal extension of the line between Sections 4 and 9, Township 9 South, Range 11 East, in Oklahoma, and 5906.3 feet east of the corner of Sections 4, 5, 8 and 9 of that township. The monument is located 20 feet east of the top of steep timbered slope at a point 330 ft. north of Peppercamp Creek, and approximately S. 67° W., 2.4 miles distant from Tulip School-house in Fannin County, on the Mark R. Roberts Survey. The point is about 16 miles north of Bonham, Texas, from which place it may be conveniently reached by wagon road.

From the reference monument:

A black walnut, 12 ins. diam., bears S. 2° 30′ W., 430 ft. dist., marked R P 36 B T.
A black walnut, 10 ins. diam., bears S. 24° 30′ W., 140.8 ft. dist., marked R P 36 B T.

Reference Monument No. 37.

This station is on the meridional extension of the line between Sections 26 and 27, Township 8 South, Range 11 East, in Oklahoma, and 6353.8 ft. south of the corner of Sections 22, 23, 26 and 27 of that township. The monument is located 15 ft. south of the top of a timbered slope at a point approximately N. 15° W., 4750 feet distant from Tulip School-house, in Fannin County, Texas, and is on the John A. Haynie Survey. The point is about 16 miles north of Bonham, Texas, from which place it may be conveniently reached by wagon road.

From the reference monument:

A cottonwood, 15 ins. diam., bears N. 7° 45′ W., 26.6 ft. dist., marked R P 37 B T.

A black walnut, 15 ins. diam., bears N. 87° E., 484.9 ft. dist., marked R P 37 B T.

Reference Monuments in Oklahoma.

Witness Corner Secs. 4, 5, 8 and 9.

This monument is at the southeast corner of cultivated field, on land belonging to A. J. Smith, at point from which the corner of Sections 4, 5, 8 and 9, Township 9 South, Range 11 East, bears east, 13.9 ft. dist. The point is 5 miles east and about ½ mile north of Yarnaby, Bryan County, Oklahoma, and about ¼ mile east of the residence of A. J. Smith.

From the witness corner:

A bois d'arc, 8 ins. diam., bears N. 52° E., 86.8 ft. dist., marked W C T 9 S R 11 E S 4 B T. An elm, 14 ins. diam., bears S. 28° 15' E., 58.1 ft. dist., marked W C T 9 S R 11 E S 9 B T. A bois d'arc, 6 ins. diam., bears S. 62° 15' W., 59.4 ft. dist., marked W C T 9 S R 11 E S 8 B T.

Witness Corner Secs. 22, 23, 26 and 27.

This station is on timbered land at a point from which the corner of Sections 22, 23, 26 and 27, T. 8 S., R. 11 E., bears south, 2 ft. distant. The point is 3 miles south and 2 miles east of Albany, Bryan County, Oklahoma, from which place it may be conveniently reached.

From the witness corner:

A cottonwood, 10 ins. diam., bears N. 57° 15′ E., 42.9 ft. dist., marked W C T 8 S R 11 E S 23 B T.

A cottonwood, 14 ins. diam., bears S. 15° E., 88.4 ft. dist., marked W C T 8 S R 11 E S 26 B T.

A sycamore, 5 ins. diam., bears S. 70° 30′ W., 26.4 ft. dist., marked W C T 8 S R 11 E S 27 B T.

A cottonwood, 14 ins. diam., bears N. 3° 15′ W., 83.8 ft. dist., marked W C T 8 S R 11 E S 22 B T.

Descriptions of Posts.

All posts are rough bois d'arc. Most of the posts are 6 ft. long, and about 4 ins. in diameter, set 42 ins. in the ground. The part of each post above ground is squared, and painted white. The posts are numbered downstream. The initial post "0" marks the upper limit of the area surveyed; the terminal post (No. 39) marks the lower limit of the area. The numbers are stamped in the tops of the posts; they are also stenciled on the sides.

Witness Posts.

Posts that are not located on the boundary line are designated witness posts (abbreviated: W. P.). In this area there are four, viz: Nos. 0, 1, 38 and 39. Witness posts are set back from the boundary bank on safe ground, and are stenciled on the sides as follows:

Tex.-Okla. Bdy. (on side toward river); Witness Post (on side downstream); U. S. Supreme Court (on side upstream); and, Number (on side opposite the river).

Boundary Posts.

Posts that are set on the boundary line across the accretion area and along the medial line of the 1885 channel, are designated boundary posts (abbreviated: P). In this area they are numbered from 2 to 37, inclusive, and are stenciled on the sides as follows, looking downstream:

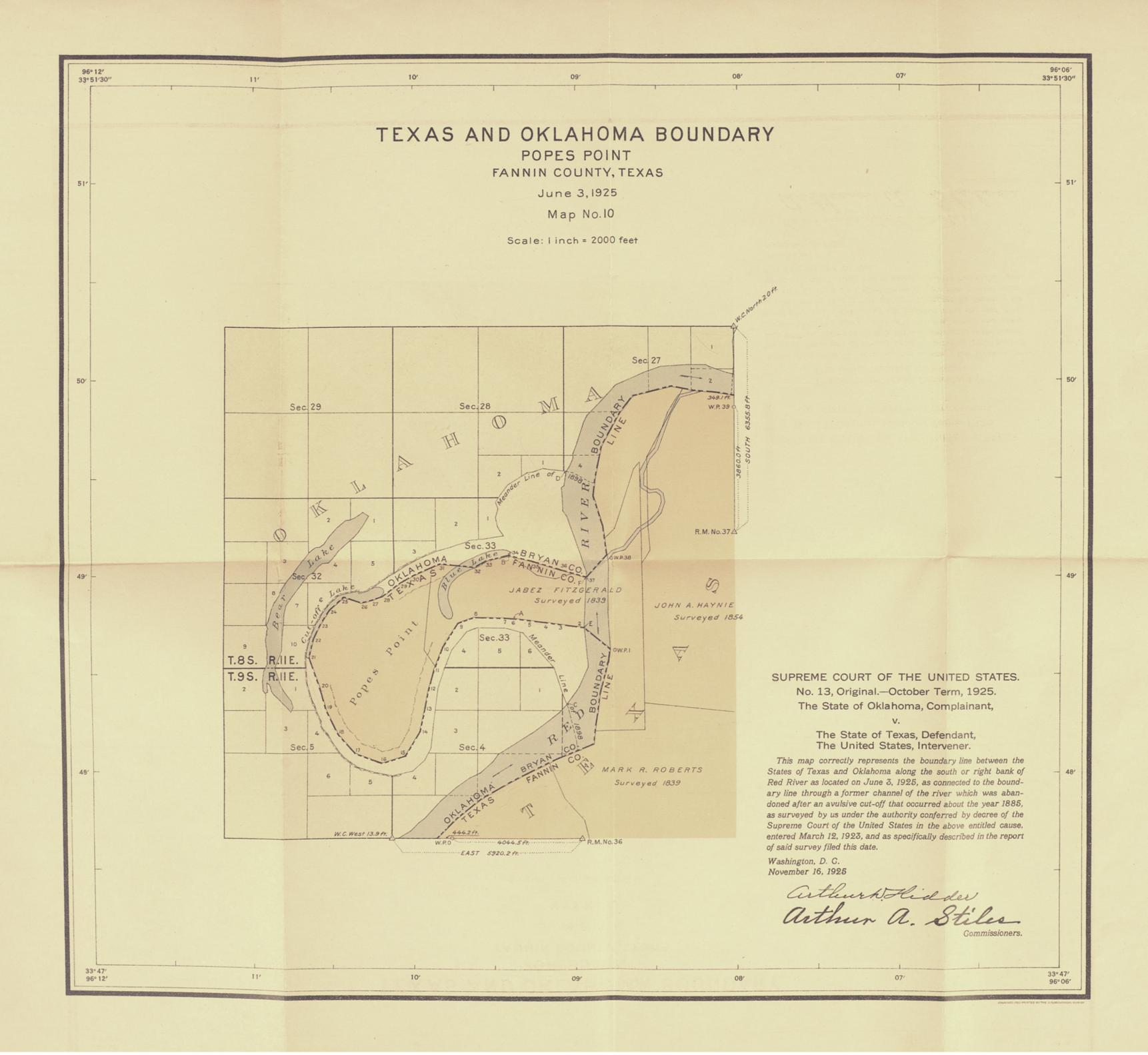
Okla. (on left);
Texas (on right);
U. S. Supreme Court (on side upstream); and,
Number (on side downstream).

Bearing Trees.

The following table identifies bearing trees which were employed as accessories to witness posts and boundary posts. The bearing trees were blazed and scribed in the usual manner practiced by surveyors; the marks include the serial number of the post to which the tree refers:

| the t | 166 1616 | | | | Tol-4 |
|-------|----------|------------|---------|---------------|-----------|
| Post | | Trees. | Diam. | Bearings. | Dist. |
| No. | 1 | Sycamore | 7 ins. | N. 31° 45′ E. | 157.7 ft. |
| | | Locust | 5 ins. | N. 79° 00′ E. | 71.9 ft. |
| No. | 13 | Sycamore | 5 ins. | N. 25° 00′ E. | 11.9 ft. |
| | | Cottonwood | 16 ins. | S. 57° 15′ W. | 6.6 ft. |
| No. | 14 | Cottonwood | 15 ins. | S. 4° 00′ E. | 4.6 ft. |
| | | Cottonwood | 10 ins. | S. 81° 30′ W. | 50.8 ft. |
| No. | 16 | Cottonwood | 12 ins. | N. 67° 30′ W. | 45.5 ft. |
| | | Cottonwood | 12 ins. | S. 57° 00′ W. | 42.2 ft. |
| No. | 17 | Cottonwood | 10 ins. | N. 52° 30′ E. | 40.3 ft. |
| | | Cottonwood | 10 ins. | S. 63° 30′ W. | 29.7 ft. |
| No. | 18 | Sycamore | 5 ins. | S. 31° 30′ E. | 34.0 ft. |
| | | Cottonwood | 12 ins. | N. 54° 00′ E. | 77.2 ft. |
| No. | 19 | Cottonwood | 8 ins. | S. 13° 45′ W. | 7.3 ft. |
| | | Cottonwood | 12 ins. | S. 74° 45′ E. | 26.1 ft. |
| No. | 20 | Cottonwood | 5 ins. | N. 74° 15′ E. | 39.6 ft. |
| No. | 22 | Elm | 8 ins. | N. 69° 45′ W. | 180.8 ft. |
| No. | 23 | Ash | 5 ins. | S. 72° 30′ E. | 76.6 ft. |
| No. | 24 | Ash | 4 ins. | N. 83° 00′ E. | 69.3 ft. |
| No. | 26 | Cottonwood | 8 ins. | S. 7° 15′ E. | 77.2 ft. |
| No. | 29 | Cottonwood | 9 ins. | N. 1° 00′ E. | 19.8 ft. |
| | | Cottonwood | 12 ins. | S. 39° 15′ E. | 25.7 ft. |
| No. | 30 | Cottonwood | 13 ins. | N. 50° 45′ W. | 55.4 ft. |
| | | Cottonwood | 12 ins. | S. 63° 15′ E. | 68.0 ft. |
| No. | 31 | Sycamore | 4 ins. | S. 27° 45′ W. | 32.0 ft. |
| No. | 38 | Cottonwood | 8 ins. | S. 3° 30′ W. | 150.3 ft. |
| | | Cottonwood | 8 ins. | S. 37° 45′ E. | 157.7 ft. |

Map No. 10, showing Popes Point, is inserted here:



Blum Lake.
(No Map.)

Location:

Fannin County, Texas. About 20 miles northeast of Bonham.

Texas Original Surveys:

Felix G. Sadler. John R. Garnett. Margaret Garnett.

Bryan County, Oklahoma. About 15 miles southwest of Bennington. Opposite T. 8 S., R. 12 E.

Principal Witnesses:

A. G. Allen, Route 5, Bonham, Texas.

D. W. Sweeney, Pres. First National Bank, Bonham, Texas.

W. E. Biggerstaff, Bonham, Texas.

Summary of Testimony:

In this community there is a legend that Blum Lake was once a part of the main channel of Red River. But the oldest inhabitants never saw the river flowing in the lake and they do not recall anyone who claimed to have seen it flow there. It may be that Blum Lake was an old channel of the Red River, but that fact cannot be satisfactorily established now. As far back as we can determine, the river was north of Blum Lake. In 1885, between the lake and the river, there was a cultivated field of some 75 or 100 acres, and a house occupied by one Crabtree by name. The land was owned under undisputed Texas title and taxes were paid in Texas. The land surveys in both States stop at the river of today, and do not cross it. There have never been any conflicting claims arising from doubt as to the location of the boundary. W. E. Biggerstaff, a former sheriff of Fannin County, recognized the present river as the boundary and stated that there were no disputes concerning it. Blum Lake is now largely filled, and in cultivation.

We conclude that the boundary line here is on and along the present south cut-bank of the river, and that it does not require to

be surveyed or marked out upon the ground.

Grubbs Lake Area.

(Map No. 11.)

Location:

Fannin County, Texas. About 23 miles northeast of Bonham.

Texas Original Surveys:

Willis A. Moore. Alexander Russell. John G. Jouett.

Bryan County, Oklahoma. About 14 miles south of Bennington, Okla. Opposite Sections 12, 13 and 24, T. 8 S., R. 12 E., and Sections 7 and 18, T. 8 S., R. 13 E.

Principal Witnesses:

Tom T. Pace, Telephone, Fannin County, Texas.

J. M. Wells, Bonham, Texas.

G. E. Bell, Route 2, Telephone, Fannin County, Texas.

R. E. Snow, Route 5, Bonham, Texas.

Summary of Testimony:

In the time of the Civil War the Red River flowed in a sharp bend around a narrow neck of the Texas mainland projecting northward and covered by the Willis A. Moore Survey, which extended southward to the narrowest part of the land in the neck of the bend. Here the Alexander Russell Survey joined the Moore Survey and, completing the neck of land, continued southward far into the Texas highlands. A ferry boat was owned and operated by George Grubbs, across the Red River at the northern point of the bend, and travelers going northward through the Russell and Moore Surveys crossed the river at this ferry. In July 1867, during a flood, the Red River broke through the narrow neck of land, and made a new channel about 150 yards wide in about twenty-four hours. Thus the river severed the land in the northern part of the Moore Survey from the Texas mainland. The river did not injure the land cut off, but left considerable drift and silt upon it. The river continued flowing in the new channel and abandoned the old one, which became Grubbs Lake. The old ferry across the Red River is where the old bed of Grubbs Lake is now, and the old road approach to the ferry is still indented in the old north bank. Many years ago the Moore Survey was owned by L. D. Nunnelee, who claimed it under Texas title and paid taxes on it in Texas until about 1890. In 1911 Nunnelee's administrators conveyed the property by quit-claim deed to the present owner, R. E. Snow, who has had possession of it, and has paid taxes on it to Texas ever since. In 1905 the Red River made a second avulsive cut-off farther south, across the same neck of land.

Field Work: -- Conclusions.

The facts as we found them on the ground agree with the information given at the hearing. The long bend around which the river flowed before either cut-off occurred is still very plain, and both old high banks are easily followed practically all of the way. This long bend is entirely abandoned by the river and is filled deep with accretions attaching to both banks and meeting in the middle. The bottom of it is much higher now than the river, and is covered with thick growths of willow and cottonwood trees of considerable size, and much underbrush, except in the old bed of Grubbs Lake. We ascertained the approximate position of Grubbs Ferry and found the old road indented in the bank. The first avulsion went across this long bend near the middle. It is shown on the map as the "Bryant Cut-off." It occurred in 1867. It is filled with river deposit to the level of the other abandoned channel, and contains the usual tree growth and underbrush. The second avulsion, said to have occurred in 1905, took place south of the first, about where the river is now.

As a result of the accretion, we conclude that the boundary follows the medial line of the abandoned channel through which the river flowed before either cut-off occurred, and we have established and marked it there. From the two ends of the medial line we have extended the boundary across the present position of the river, and marked it on and along the south cut-bank for convenient distances up and down the river.

The position of the boundary line here is that which existed on

June 23, 1925.

The field notes for this area follow:

Beginning at Reference Monument No. 38 on the Texas bluff,

as such monument is hereinafter defined, thence

North, on a southerly extension of the line between Sections 13 and 14, Township 8 South, Range 12 East, in Oklahoma, 52.1 ft. (79 lks.) to Witness Post "0."

Thence from Witness Post "0"

North, 16.5 ft. (25 lks.) to the south or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank downstream with traverse of the boundary on and along the cut bank:

> N. 76° 50′ E., 376.2 ft. (5.70 chs.) N. 73° 10′ E., 270.6 ft. (4.10 chs.) N. 74° 24′ E., 297.0 ft. (4.50 chs.)

From this point Witness Post No. 1 bears S. 27° 02' E., 19.5 ft.

(29.5 lks.) dist.

Thence from the above point on south or right bank of river the boundary crosses to Post No. 2, which post is located at the intersection of the present north or left bank of the river and the medial line of the abandoned channel,

```
N. 38° 37' E., 2950.2 ft. (44.70 chs.)
```

Thence from Post No. 2 the boundary follows the medial line of the abandoned channel:

```
331.3 ft. ( 5.02 chs.) to Post
N. 25° 52′ E..
N. 27° 56′ E.,
               498.3 ft. (7.55 chs.) to Post
                                              4;
               719.4 ft. (10.90 chs.) to Post
N. 15° 34′ E.,
N. 17° 12′ E., 745.1 ft. (11.29 chs.) to Post
N. 9° 09′ E., 965.6 ft. (14.63 chs.) to Post
                                              7;
N. 5° 42′ E., 593.3 ft. ( 8.99 chs.) to Post
                                              8:
N. 81° 59′ W., 644.2 ft. (9.76 chs.) to Post 9;
N. 82° 03′ W.,
               767.6 ft. (11.63 chs.) to Post 10;
N. 55° 41′ W., 728.6 ft. (11.04 chs.) to Post 11;
N. 34° 46′. W., 590.7 ft. (8.95 chs.) to Post 12;
N. 32° 17′ W., 531.3 ft. ( 8.05 chs.) to Post 13;
N. 21° 49′ W., 1013.8 ft. (15.36 chs.) to Post 14;
N. 12° 32′ E., 786.1 ft. (11.91 chs.) to Post 15;
N. 23° 26′ E..
               563.6 ft. (8.54 chs.) to Post 16;
               603.9 ft. (9.15 chs.) to Post 17;
N. 75° 41′ E.,
S. 87° 19′ E.,
               650.1 ft. (9.85 chs.) to Post 18;
S. 63° 55′ E.,
               715.4 ft. (10.84 chs.) to Post 19;
S. 56° 05′ E., 747.8 ft. (11.33 chs.) to Post 20;
               370.9 ft. (5.62 chs.) to Post 21;
S. 53° 34′ E.
S. 43° 48' E., 376.2 ft. (5.70 chs.) to Post 22;
S. 70° 44′ E., 718.7 ft. (10.89 chs.) to Post 23;
N. 82° 05′ E., 399.3 ft. ( 6.05 chs.) to Post 24;
S. 84° 52′ E., 462.0 ft. (7.00 chs.) to Post 25;
S. 52° 27′ E., 634.3 ft. ( 9.61 chs.) to Post 26;
S. 45° 48' E., 469.9 ft. (7.12 chs.) to Post 27;
S. 17° 17′ E., 1143.1 ft. (17.32 chs.) to Post 28;
S. 9° 02′ E., 903.5 ft. (13.69 chs.) to Post 29;
S. 10° 19′ W., 793.3 ft. (12.02 chs.) to Post 30;
S. 25° 53′ W., 631.0 ft. (9.56 chs.) to Post 31;
S. 29° 57′ W., 611.2 ft. ( 9.26 chs.) to Post 32.
```

Thence from Post 32 the boundary leaves the medial line of the abandoned channel and crosses to the south or right bank of river

S. 19° 03′ E., 1452.7 ft. (22.01 chs.)

From this point Witness Post No. 33 bears N. 89° 52′ E., 596.0 ft. (9.03 chs.) dist.

From Witness Post No. 33 Reference Monument No. 39 bears S.

21° 46′ 20" W., 1829.2 ft. (27.715 chs.) dist.

Thence from the above point on south or right bank of river continuing downstream with traverse of the boundary on and along the cut bank:

N. 45° 54′ E., 507.5 ft. (7.69 chs.) N. 77° 33′ E., 792.0 ft. (12.00 chs.) N. 75° 53′ E., 918.7 ft. (13.92 chs.) N. 68° 31′ E., 281.8 ft. (4.27 chs.)

From this point Witness Post No. 34 bears S. 4° 02′ E., 38.3 ft. (58 lks.) dist.

Thence from the above point on the south or right bank of river continuing downstream with traverse of the boundary on and along the cut bank:

> N. 72° 17′ E., 363.7 ft. (5.51 chs.) N. 83° 33′ E., 530.0 ft. (8.03 chs.) N. 84° 47′ E., 372.9 ft. (5.65 chs.) S. 83° 47′ E., 155.1 ft. (2.35 chs.)

From this point Witness Post No. 35 bears South, 35 ft. (53 lks.) dist.

From Witness Post No. 35

South, on a southerly extension of the line between Sections 17 and 18, Township 8 South, Range 13 East, in Oklahoma, 1701.5 ft. (25.780 chs.) to Reference Monument No. 40 on the Texas bluff, as such monument is hereinafter defined.

Description of Reference Monuments.

All reference monuments (abbreviated: "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked

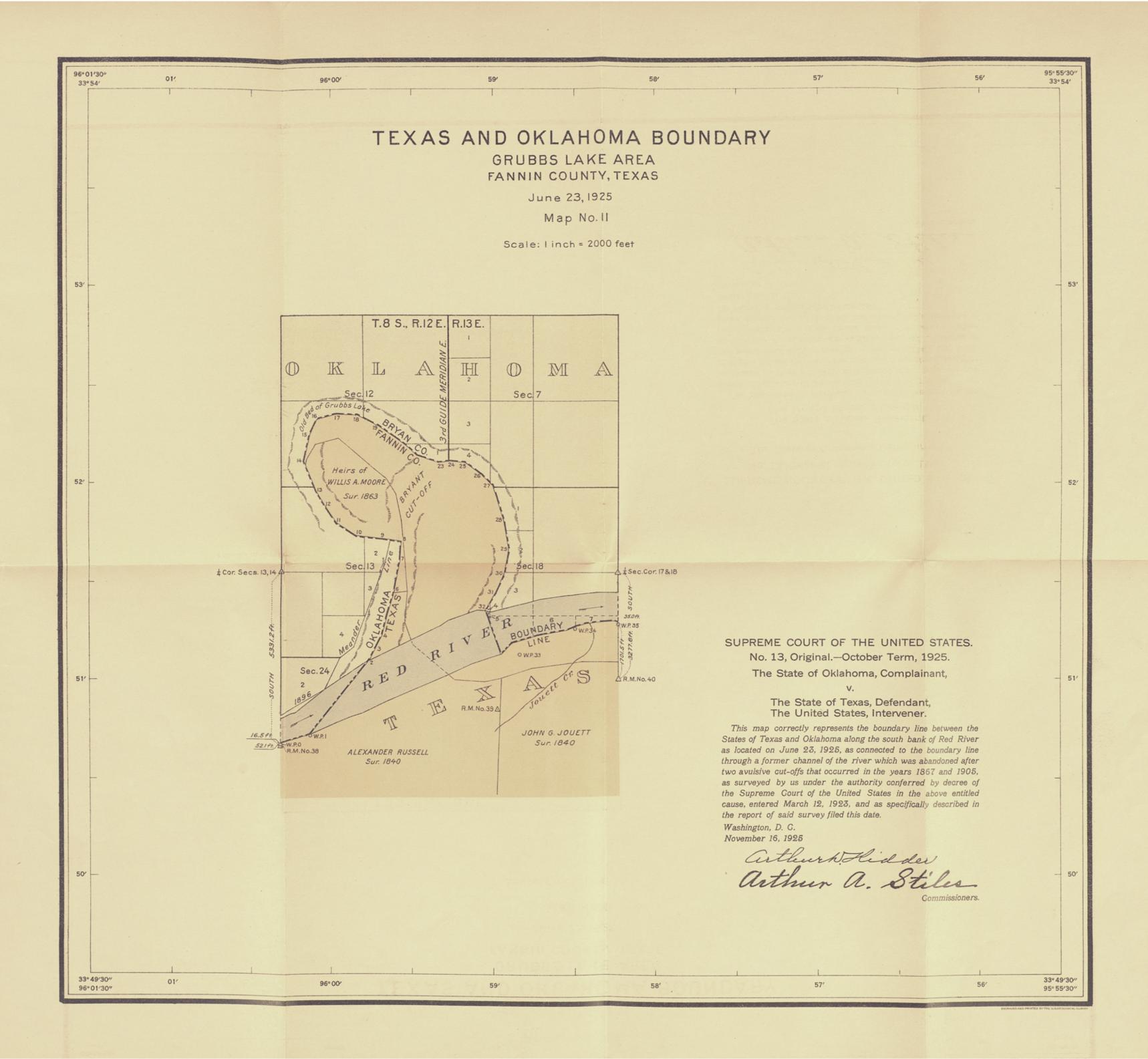
by a heavy bronze tablet, inscribed as shown on page 18.

The reference monuments on the Oklahoma side are correlated with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diameter, having a bronze cap, the post being placed full length in the concrete form described above. These monuments are appropriately marked according to the standard specifications of the General Land Office. They readily identify the position of the monument in the United States rectangular survey system.

the marks include the serial number of the post to which the tree refers:

| Post. | Trees. | Diam. | Bearings. | Dist. |
|--------|------------|---------|---------------|----------|
| No. 10 | Hackberry | 10 ins. | S. 21° 30′ E. | 4.6 ft. |
| | Box elder | 12 ins. | N. 3° 15′ W. | 28.4 ft. |
| No. 11 | Walnut | 11 ins. | S. 26° 30′ W. | 26.4 ft. |
| | Sycamore | 8 ins. | N. 21° 15′ W. | 12.5 ft. |
| No. 12 | Cottonwood | 20 ins. | N. 83° 30′ E. | 38.3 ft. |
| | Sycamore | 8 ins. | S. 57° 15′ W. | 69.3 ft. |
| No. 19 | Sycamore | 4 ins. | N. 53° 45′ W. | 19.5 ft. |
| | Ash | 10 ins. | S. 49° 45′ E. | 41.6 ft. |
| No. 20 | Sycamore | 6 ins. | S. 6° 15′ E. | 39.6 ft. |
| | Ash | 8 ins. | N. 51° 45′ W. | 71.9 ft. |
| No. 21 | Hackberry | 7 ins. | N. 65° 45′ E. | 22.4 ft. |
| | Ash | 12 ins. | N. 64° 00′ W. | 55.4 ft. |
| No. 22 | Box elder | 8 ins. | N. 17° 30′ E. | 42.2 ft. |
| | Box elder | 14 ins. | S. 14° 00′ W. | 41.6 ft. |

Map No. 11, showing Grubbs Lake area, is inserted here:



IX.

IN

LAMAR COUNTY, TEXAS,

OPPOSITE

Bryan and Choctaw Counties, Oklahoma.

Public Hearings:

Hugo, Oklahoma, June 6, 1925. Paris, Texas, June 9 and 10, 1925.

We have established the boundary along the Red River in this county at Pitts Bend and Allen Island. We have also considered the location of the boundary at Golden Bluff and Slate Shoals Bend. These areas are described as follows:

Pitts Bend, Lamar County, Texas

and

Allen Island, Choctaw County, Oklahoma.

(Map No. 12.)

Location:

Lamar County, Texas.

About 16 miles north of Paris.

Texas Original Surveys:

Bartley Pitts Thomas King James D. Allen J. J. Cothran George Bason John W. Tyson Wm. B. Wright Wm. Wood Samuel M. Fulton Wm. M. Fulton

Choctaw County, Oklahoma. About 10 miles south of Hugo. Opposite Sections 32, 33 and 34, T. 7 S., R. 17 E., and Sections 3, 4, 5 and 10, T. 8 S., R. 17 E.

Principal Witnesses:

R. P. Draper, County Surveyor, Hugo, Oklahoma. G. W. Campbell, Chicota, Lamar County, Texas. Robert Arthur, Arthur City, Lamar County, Texas.

A. H. McQuisition, President, Liberty National Bank, Paris, Texas.

Summary of Testimony:

This area is locally known as Pitts Bend and Allen Island: It is shown upon the United States and Oklahoma Map Exhibit No. 36. Years ago at this place the Red River, flowing eastward, made a double turn, in the form of the letter "S" drafted backward, and then continued flowing eastward. Pitts Bend was the land in the upper bend, Allen Island was the land in the lower bend. The land in Pitts Bend was a peninsula of the Texas mainland projecting eastward. Allen Island was a somewhat wider peninsula of the Oklahoma mainland projecting westward. The land in Pitts Bend was covered by the Bartley Pitts Survey which was joined on the west at the base of the peninsula by the Thomas King Survey which extended southward and westward into Texas. The land in Allen Island had not been surveyed then. Hickory Bluff steamboat landing was on the Texas mainland in the western bend of the river. The last steamboat stopped there in 1866. About the year 1867 the Red River severed Allen Island from the Oklahoma mainland; and about the year 1885 it severed Pitts Bend from the Texas mainland, near the line of the Thomas King Survey. The floods that

cut off these lands did not otherwise injure them.

These two avulsions cut the river channel into three parts, all trending east and west. One part lay to the north, along the north side of the Bartley Pitts Survey in Pitts Bend; another part to the south, along the south side of Allen Island; and the third part in the middle, between Pitts Bend and Allen Island. After the lower cutoff in 1867, the river continued flowing through the north part of the channel, north of the Pitts Survey, but temporarily abandoned the two parts of the channel around Allen Island. For a time a lake and a depression marked the channel south of Allen Island. The lake has gone, but part of the depression remains. After the upper cut-off in 1885, the river abandoned the north part of the channel, along the north side of the Pitts Survey, and resumed the middle channel between the Pitts Survey and Allen Island. river then flowed eastward where it had formerly flowed westward. During the years that followed, the river, running in the middle channel, between Pitts Bend and Allen Island, gradually worked its way southward, by erosion and accretion, far into Allen Island until only a small part of the island remains. Upon seeing Allen Island severed from the Oklahoma mainland, James D. Allen. believing that the land cut off and left south of the Red River was thereby placed within the State of Texas, hastened to the County Clerk at Paris, and made inquiry how to file upon the land. He was referred to the State Land Office at Austin, but before his papers could be perfected he died. Soon afterward the property was patented by the State of Texas, the west half to the Allen heirs and the east half to J. J. Cothran. Allen Island has not been surveyed by the United States, although it was once part of the Oklahoma mainland. The people living in the neighborhood have always looked upon it as being in Texas, and Texas has exercised undisputed juris-

diction over it for forty years.

Formerly Sanders Creek, coming from the Texas hills, approached close up to the south side of the river as though to go into it near the lower end of Allen Island, then abruptly turned away, went down the valley and emptied into the river about a mile below. Subsequently the river, during a flood, cut into Sanders Creek at the close-by point, swept down the channel of the creek, and came out at the lower opening. Thus Sanders Creek came to have two outlets into the Red River, one near the lower end of Allen Island and the other a mile farther down the river. The valley land between these two outlets and north of Sanders Creek and south of Red River, was patented by the State of Texas in 1866 to George Bason, and this area is the Bason Survey. In later years the Red River by erosion first reduced the survey along the northeast half but afterward very much enlarged it by accretion at the same place. As this accretion progressed the Oklahoma bank opposite was deeply eroded, but the erosion was retarded by bank protection built there by the Frisco Railroad.

Field Work: - Conclusions.

Having studied the record evidence and the information given at the hearings, we went over this area with some of our informants who showed us the principal features of it. Then, going upon the ground, we thoroughly examined all of it and made a preliminary sketch map of it for use in studying it further, as the area is extensive and complicated. The facts as we gathered them on the ground corroborated all of the essential information that we had obtained. The Red River had made the two avulsive changes described at the hearings, and we found the localities where both had taken place. We also found the three parts of the old channel made by the two avulsions, and found that the river had gradually moved far southward from its former position in the middle part of the channel.

Considering the river channel in these three parts, we found that the northern part, north of the Bartley Pitts Survey, is very plain but is wholly abandoned by the river and filled with river earth. Part of it is in cultivation and pasture, part is occupied by a good sized lake near the east end, and the remainder is covered by comparatively young willow and cottonwood trees and dense jungle of underbrush and vines. The old north high bank of the river is easily followed except for a short distance at the west side, not far from the present position of the river. The south high bank along the north line of the Bartley Pitts Survey is perfectly plain except

at the west end, where it was destroyed by the river after the upper cut-off occurred in 1885. The middle part of the old channel between Pitts Bend and Allen Island is shown only by what remains of the old Texas bank of the river along the south side of the Bartley Pitts Survey. The old Oklahoma bank of the river along the north side of Allen Island has been totally destroyed as this part of the channel gradually moved southward by erosion and accretion into Allen Island, after the cut-off in 1885. Attaching to the foot of the old bank along the south side of the Bartley Pitts Survey, and going southward to the present position of the river, is a broad stretch of accretion, low, flat and sandy. This is covered with a thick growth of young willows and cottonwoods to within a few hundred feet of the present river. The oldest growth is next to the old bank, the youngest is next to the river. The southernmost part of the old channel, south of Allen Island, is plain, but is almost all filled up, and some of it is in cultivation and meadow. The lake referred to at the hearing is no longer there. The old Texas bank is easily followed almost all of the way, except at the east end of Allen Island, where it has been cut off by erosion. The old Oklahoma bank has been destroyed by erosion and can be followed for only a short distance on what is left of Allen Island. The bottoms of these abandoned pieces of the old channel are filled with river earth accumulated from both sides and meeting in the middle. They are much higher than the sand bed of the flowing river near by. We found the two outlets of Sanders Creek, and the cut-off portion of the creek channel, through which the river flows only at high stages.

As a result of the accretions, we conclude that the boundary is along the medial line of the abandoned channels and along the south side of the lake that remains. The land in the George Bason Survey, north of Sanders Creek, is in Texas, where the boundary is on and along the present south cut-bank of the river. Inasmuch as the large accretion attaching to the old Texas bank along the south side of the Pitts Survey and also attaching to the Oklahoma mainland, took place after the last cut-off occurred, and with the movement southward of the river flowing eastward where it formerly flowed westward we conclude that the Pitts Survey does not share in this more recent accretion, but that the boundary line here, as elsewhere, follows the medial line of the abandoned channels where they were when the avulsions occurred. We have established and marked the boundary line accordingly and have extended it across the present position of the river, and on and along the south cut-bank

Where both old banks could be found, we established the boundary half-way between them, and thereby ascertained the average width of the old channel in all such places. Where only one old bank could be found, we measured from it, in the appropriate direction, one-half the average width of the channel near by, and so located the boundary line there.

for sufficient distances above and below the avulsions.

As shown on the map, the boundary from the point "A" to the point "B" is a straight line conforming with the direction of the old Oklahoma bank as first found opposite point "B". From Post

No. 15 to Post No. 19 the boundary follows the south side of the lake heretofore mentioned. From point "C" to point "D" the boundary follows the medial line of the old channel as determined by the field notes of the Bartley Pitts and James D. Allen Surveys. From point "D" to point "E" the boundary crosses the present river. From point "F" to point "G" the boundary follows the present cut bank, where the river has returned to its original course. From point "H" downstream, the boundary is on and along the present south cut-bank of the river, following the accretion attaching to the George Bason Survey.

The position of the boundary line here is that which existed on

June 22, 1925.

The field notes of this area follow:

Beginning at Reference Monument No. 41 on the Texas upland,

as such monument is hereinafter defined, thence

East, on a westerly extension of the line between Sections 29 and 32, Township 7 South, Range 17 East, in Oklahoma, 1382.4 ft. (20.946 chs.) to Witness Post "0". This witness post is located on high timbered flood plain within the river valley.

Thence from Witness Post "0"

East, 205.3 ft. (3.11 chs.) to the south (west) or right cut-bank of Red River, and boundary between Texas and Oklahoma. The bank is well defined.

Thence from point on river bank downstream with traverse of the boundary on and along the cut bank:

From this point Witness Post No. 1 bears N. 84° 40′ W., 132.7 ft.

(2.01 chs.) dist.

Thence from the above point on south (west) or right bank of Red River continuing downstream with traverse of the boundary on and along the cut bank:

> S. 4° 18′ W., 428.3 ft. (6.49 chs.) S. 4° 10′ W., 843.5 ft. (12.78 chs.) S. 9° 54′ W., 920.7 ft. (13.95 chs.)

From this point Witness Post No. 2 bears N. 48° 36' W., 256.7

ft. (3.89 chs.) dist.

Thence from the above point on south (west) or right bank of river the boundary crosses to point "A" on present north (east) or left bank of river, as heretofore described

Thence from point "A" the boundary crosses accretion area:

Post 4 is coincident with point "B" heretofore described, in medial line of abandoned channel.

Thence from point "B" the boundary follows the medial line of the abandoned channel:

```
S. 48° 36' E., 792.1 ft. (12.001 chs.) to Post 5;
S. 64° 32' E., 995.9 ft. (15.090 chs.) to Post 6;
S. 72° 42′ E., 997.4 ft. (15.112 chs.) to Post
S. 83° 30' E., 1003.5 ft. (15.204 chs.) to Post 8;
N. 78° 36′ E., 739.3 ft. (11.202 chs.) to Post 9;
N. 71° 25′ E., 1123.5 ft. (17.022 chs.) to Post 10;
N. 56° 33′ E., 949.9 ft. (14.392 chs.) to Post 11:
N. 47° 49′ E., 861.2 ft. (13.049 chs.) to Post 12;
N. 31° 03′ E., 1057.7 ft. (16.026 chs.) to Post 13;
N. 17° 08' E., 848.4 ft. (12.855 chs.) to Post 14;
N. 26° 52' E., 1341.1 ft. (20.320 chs.) to Post 15;
N. 73° 59' E., 629.0 ft. (9.530 chs.) to Post 16;
S. 73° 35' E., 617.8 ft. (9.361 chs.) to Post 17;
S. 23° 52' E., 436.6 ft. (6.615 chs.) to Post 18;
S. 5° 30′ W., 894.2 ft. (13.548 chs.) to Post 19;
S. 15° 10′ W., 832.4 ft. (12.612 chs.) to Post 20;
S. 24° 27' W., 673.3 ft. (10.202 chs.) to Post 21;
S. 23° 40′ W., 646.5 ft. (9.795 chs.) to Post 22;
S. 21° 28′ W., 653.3 ft. (9.898 chs.) to Post 23;
S. 67° 27' W., 527.8 ft. (7.997 chs.) to Post 24;
N. 78° 46′ W., 726.5 ft. (11.008 chs.) to Post 25;
S. 74° 56' W., 527.9 ft. (7.999 chs.) to Post 26;
S. 46° 52′ W., 937.3 ft. (14.202 chs.) to Post 27;
S. 51° 37' W., 1011.3 ft. (15.322 chs.) to Post 28;
N. 83° 52′ W., 1052.3 ft. (15.944 chs.) to Post 29.
```

Post 29 is coincident with point "C" heretofore described. Thence from point "C" the boundary crosses accretion area:

```
S. 69° 53′ W., 1188.0 ft. (18.00 chs.) to Post 30;
N. 88° 47′ W., 1056.0 ft. (16.00 chs.) to Post 31;
S. 88° 15′ W., 1056.0 ft. (16.00 chs.) to Post 32;
S. 75° 00′ W., 990.0 ft. (15.00 chs.) to Post 33.
```

Post 33 is located near the present north or left bank of river and is coincident with point "D" heretofore described.

Thence from point "D" the boundary crosses to south or right bank of river.

```
S. 29° 50' W., 1252.0 ft. (18.97 chs.) to a point.
```

The above point is located on the present south or right bank of river and is coincident with point "E" heretofore described, in the medial line of the abandoned channel. From point "E" Witness Post No. 34 bears S. 83° 49' W., 347.2

ft. (5.26 chs.) dist.

Thence from point "E" the boundary follows the medial line of the abandoned channel:

S. 0° 36′ W., 558.8 ft. (8.466 chs.) to Post 35; S. 27° 01′ E., 948.4 ft. (14.369 chs.) to Post 36; S. 53° 23′ E., 1069.1 ft. (16.198 chs.) to Post 37; S. 61° 31′ E., 331.5 ft. (5.022 chs.) to Post 38; N. 76° 15′ E., 730.0 ft. (11.060 chs.) to Post 39.

From Post No. 39 Reference Monument No. 42 bears S. 67° 46′ E., 537.6 ft. (8.146 chs.) dist.

Thence from Post No. 39 continuing along the medial line of the abandoned channel:

N. 65°, 37′ E., 620.3 ft. (9.398 chs.) to a point.

The above point is located on the present south or right bank of river and is coincident with point "F" heretofore described, in the medial line of the abandoned channel.

Thence from point "F" on river bank downstream with traverse

of the boundary on and along the cut bank:

N. 67° 20′ E., 889.0 ft. (13.47 chs.)
 N. 79° 46′ E., 866.6 ft. (13.13 chs.)

N. 63° 23′ E., 609.8 ft. (9.24 chs.) to Post No. 40.

Post No. 40 is located on the present south or right bank of river and is coincident with point "G" heretofore described, in the medial line of the abandoned channel.

Thence from Post No. 40 the boundary follows the medial line of

the abandoned channel:

N. 77° 09′ E., 568.5 ft. (8.613 chs.) to Post 41; N. 76° 01′ E., 871.7 ft. (13.207 chs.) to Post 42; N. 63° 43′ E., 516.2 ft. (7.821 chs.) to Post 43; N. 57° 28′ E., 570.4 ft. (8.643 chs.) to Post 44; N. 47° 02′ E., 499.8 ft. (7.572 chs.) to Post 45; N. 53° 23′ E., 1384.5 ft. (20.978 chs.) to a point.

The above point is located on the present south or right bank of river and is coincident with point "H" heretofore described, in the medial line of the abandoned channel.

From point "H" Witness Post No. 46 bears S. 36° 30' E., 332.0

ft. (5.03 chs.) dist.

Thence from point "H" on river bank downstream with traverse of the boundary on and along the cut bank:

N. 53° 28′ E., 1171.5 ft. (17.75 chs.) N. 60° 03′ E., 557.0 ft. (8.44 chs.) N. 50° 55′ E., 545.2 ft. (8.26 chs.) N. 67° 53′ E., 603.2 ft. (9.14 chs.) N. 87° 56′ E., 450.1 ft. (6.82 chs.) S. 88° 45′ E., 634.3 ft. (9.61 chs.) S. 32° 32′ E., 1005.2 ft. (15.23 chs.) S. 41° 53′ E., 868.4 ft. (10.40 chs.)

From this point Witness Post No. 47 bears S. 60° 19′ W., 221.4 ft. (3.355 chs.) dist.

Thence from the above point on river bank continue downstream with traverse of the boundary on and along the cut bank:

S. 50° 12′ E., 243.5 ft. (3.69 chs.) S. 5° 29′ W., 663.3 ft. (10.05 chs.) S. 9° 16′ W., 1073.8 ft. (16.27 chs.) S. 1° 25′ W., 725.3 ft. (10.99 chs.) S. 9° 04′ W., 613.1 ft. (9.29 chs.) S. 5° 13′ W., 491.7 ft. (7.45 chs.) S. 2° 47′ E., 792.7 ft. (12.01 chs.) S. 23° 10′ E., 376.2 ft. (5.70 chs.) S. 61° 33′ E., 277.2 ft. (4.20 chs.) S. 72° 56′ E., 363.0 ft. (5.50 chs.)

From this point

South, on a southerly extension of the line between Sections 34 and 35, Township 7 South, Range 17 East, in Oklahoma, 109.6 ft. (1.66 chs.) to Reference Monument No. 43 on Texas bluff, as such monument is hereinafter defined.

Description of Reference Monuments.

All reference monuments (abbreviated "R. M.") are made of concrete, moulded in mass at the station, in galvanized iron forms 36 ins. long, 8 ins. upper diameter, 14 ins. base diameter, set approximately 30 ins. in the ground.

The center of each reference monument on the Texas side is marked by a heavy bronze tablet, inscribed as shown on page 18.

The reference monuments on the Oklahoma side are correlated with the United States General Land Office public-land subdivisional survey. Each one is an iron post, 36 ins. long, 2 ins. diam., having a bronze cap, the post being placed full length in the concrete form described above. The monuments are appropriately marked according to the standard specifications of the General Land Office. They

readily identify the position of the monument in the United States rectangular survey system.

Reference Monuments in Texas.

Reference Monument No. 41.

This station is on the latitudinal extension of the line between Sections 29 and 32, T. 7 S., R. 17 E., in Oklahoma, and 5607.6 feet (84.963 chs.) west of the corner of Sections 28, 29, 32 and 33 of that township. The monument is located on the Texas upland, overlooking Red River, on the east side of a meadow, and is N. 65° 45′ E., approximately 1,650 feet (25.00 chs.) dist., from house owned by E. C. Porter and occupied by Porter Thornton, on farm known as the McIntosh Farm. The monument is approximately 2.9 miles west and 2.8 miles north of cross-roads at Arthur City, Lamar County, Texas, from which point it may be conveniently reached.

From the reference monument:

A cottonwood, 12 ins. diam., bears N. 29° 15′ E., 53.5 ft. dist., marked R P 41 B T.

A cottonwood, 12 ins. diam., bears S. 17° E., 21.8 ft. dist., marked R P 41 B T.

Reference Monument No. 42.

This monument is located approximately 100 feet south of the most southerly old Texas bank, and in north and south fence line between two cultivated fields. The northwest corner of steel highway bridge across Sanders Creek on road west from Arthur City, Lamar County, Texas, bears S. 17° 08′ W., 3391.1 ft. (51.38 chs.) dist.

From the reference monument:

A box elder, 12 ins. diam., bears N. 10° 45′ E., 243.5 ft. dist., marked R P 42 B T.

A pin oak, 26 ins. diam., bears N. 30° 30′ W., 70 ft. dist., marked R P 42 B T.

Reference Monument No. 43.

This station is on the meridional extension of the line between Sections 34 and 35, T. 7 S., R. 17 E., in Oklahoma, and 12,625.8 ft. (191.300 chs.) south of the corner of Sections 26, 27, 34 and 35 of that township. The monument is located on top of high slate rock Texas bluff, 109.6 ft. (1.66 chs.) south of the present south bank of river. The southwest corner of the south abutment of the St. L. & S. F. R. R. bridge across Red River bears S. 83° 09′ E., 288.9 ft. (4.378 chs.) dist. The cross-roads in Arthur City, Lamar County, Texas, bears S. 24° 10′ W., 2,530 ft. (38.40 chs.) dist., from which point it may be conveniently reached by road.

From the reference monument:

A bois d'arc, 7 ins. diam., bears S. 21° 40′ E., 291.4 ft. dist., marked R P 43 B T. Reference Monuments in Oklahoma.

Corner of Sections 28, 29, 32 and 33.

This monument is located at the corner of Sections 28, 29, 32 and 33, T. 7 S., R. 17 E., at the corner of a fence bearing west and south. The point is approximately 2 miles south and 1¾ miles west of Grant, Choctaw County, Oklahoma.

From the monument:

A black walnut, 9 ins. diam., bears S. 1° W., 115 ft. dist., marked T 7 S R 17 E S 32 B T.

Corner of Sections 26, 27, 34 and 35.

This monument is located at the corner of Sections 26, 27, 34 and 35, T. 7 S., R. 17 E., in a lane bearing east and west. The point is approximately 2 miles south and ¼ mile east of Grant, Choctaw County, Oklahoma.

From the monument:

A bois d'arc, 10 ins. diam., bears N. 82° W., 19 ft. dist., marked T 7 S R 17 E S 27 B T.

A willow oak, 15 ins. diam., bears S. 71° 30′ E., 79 ft. dist., marked T 7 S R 17 E S 35 B T.

Description of Posts.

All posts are rough bois d'arc. Most of the posts are 6 ft. long, and about 4 ins. in diameter, set 42 ins. in the ground. The part of each post above ground is squared, and painted white. Posts are numbered downstream. The initial post "0" marks the upper limit of the area. The numbers are stamped in the tops of the posts and are also stenciled on the sides.

Witness Posts.

Posts that are not located on the boundary line are designated witness posts (abbreviated: W. P.). In this area there are six, viz.: Nos. 0, 1, 2, 34, 46 and 47. Witness posts are set back from the boundary bank on safe ground, and are stenciled on the sides as follows:

Tex.-Okla. Bdy. (on side toward river); Witness Post (on side downstream); U. S. Supreme Court (on side upstream); and, Number (on side opposite river).

Boundary Posts.

Posts that are set on the boundary line across the accretion area and along the medial line of the abandoned channel, are designated boundary posts (abbreviated: P.). In this area they are numbered from 3 to 33, inclusive; and 35 to 45 inclusive, and are stenciled on the sides as follows, looking downstream:

Okla. (on left);
Texas (on right);
U. S. Supreme Court (on side upstream); and,
Number (on side downstream).

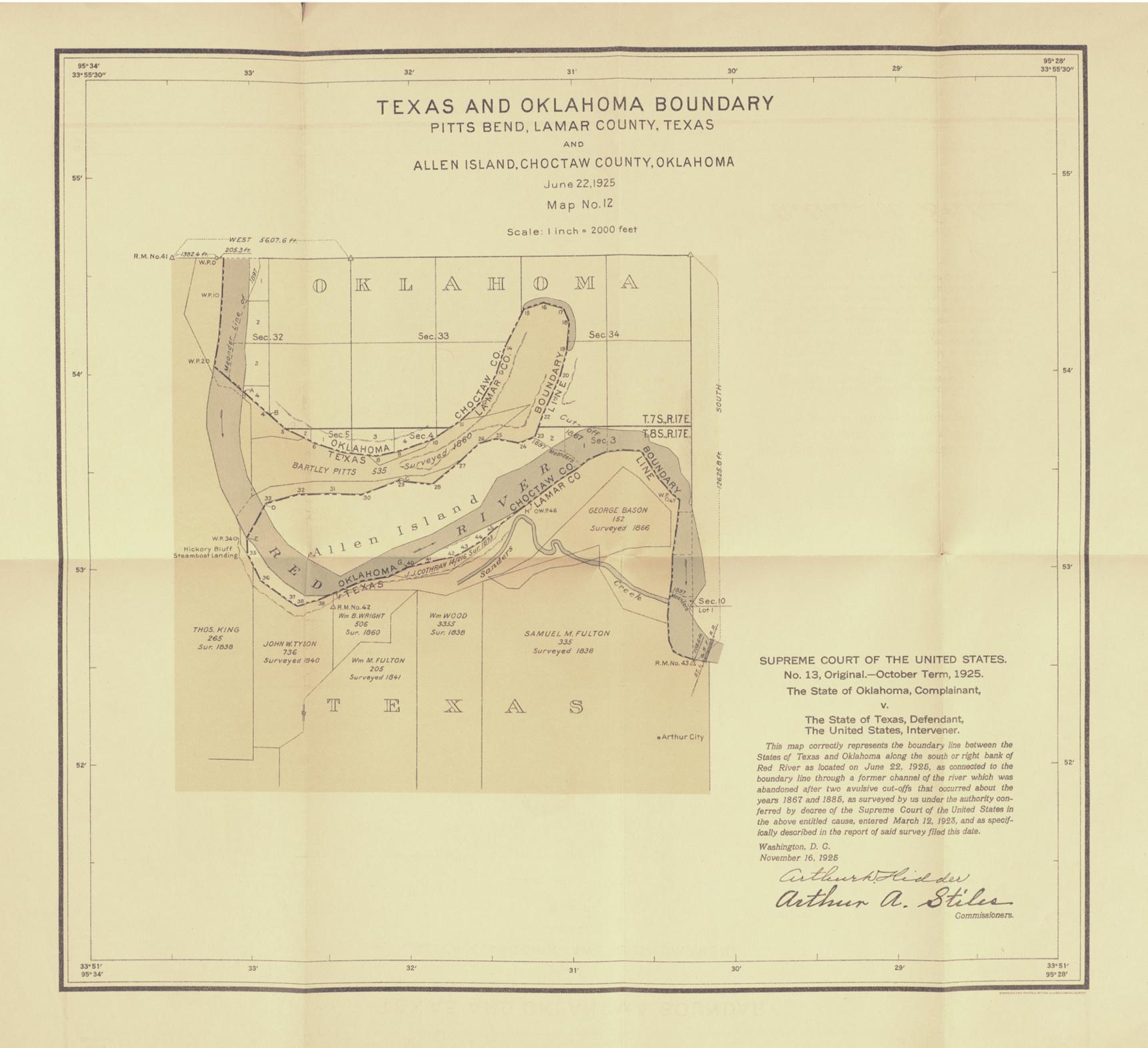
Bearing Trees.

The following table identifies bearing trees which were employed as accessories to witness posts and boundary posts. The bearing trees were blazed and scribed in the usual manner practiced by surveyors; the marks include the serial number of the post to which the tree refers:

| | | 431 | | |
|--------|------------|---------|---------------|----------|
| Post. | Trees. | Diam. | Bearings. | Dist. |
| No. 5 | Pecan | 12 ins. | N. 11° 30′ W. | 25.7 ft. |
| | Bois d'arc | 8 ins. | S. 60° 15′ E. | 27.1 ft. |
| No. 6 | Pecan | 7 ins. | S. 24° 30′ E. | 9.9 ft. |
| | Hackberry | 5 ins. | S. 75° 15′ E. | 32.3 ft. |
| No. 7 | Pecan | 10 ins. | N. 88° 30′ E. | 25.1 ft. |
| | Pecan | 5 ins. | S. 86° 15′ W. | 13.9 ft. |
| No. 8 | Maple | 12 ins. | N. 22° 45′ E. | 21.8 ft. |
| | Cottonwood | 14 ins. | S. 77° 30′ W. | 19.8 ft. |
| No. 9 | Cottonwood | 18 ins. | S. 41° 30′ W. | 10.6 ft. |
| | Hackberry | 5 ins. | N. 56° 00′ E. | 41.6 ft. |
| No. 10 | Cottonwood | 8 ins. | S. 13° 00′ E. | 42.9 ft. |
| | Cottonwood | 5 ins. | N. 6° 30′ W. | 77.9 ft. |
| No. 14 | Sycamore | 7 ins. | N. 44° 45′ W. | 37.0 ft. |
| | Willow | 5 ins. | S. 70° 00′ E. | 37.0 ft. |
| No. 15 | Willow | 18 ins. | N. 8° 00′ E. | 24.4 ft. |
| | Willow | 14 ins. | S. 8° 00′ W. | 14.5 ft. |
| No. 16 | Willow | 16 ins. | N. 89° 00′ W. | 45.5 ft. |
| | Willow | 16 ins. | S. 42° 15′ W. | 35.6 ft. |
| No. 18 | Cottonwood | 20 ins. | N. 7° 15′ E. | 13.2 ft. |
| | Cottonwood | 12 ins. | S. 8° 30′ W. | 49.5 ft. |
| No. 19 | Willow | 18 ins. | S. 44° 00′ W. | 11.2 ft. |
| | Willow | 16 ins. | S. 8° 00′ W. | 87.1 ft. |
| No. 20 | Cottonwood | 12 ins. | N. 14° 45′ E. | 91.1 ft. |
| | Cottonwood | 18 ins. | S. 24° 00′ W. | 53.5 ft. |

| Post. | Trees. | Diam. | Bearings. | Dist. |
|--------|------------|---------|---------------|-----------|
| No. 21 | Willow | 10 ins. | N. 7° 00′ E. | 2.6 ft. |
| | Willow | 20 ins. | S. 27° 15′ E. | 8.6 ft. |
| No. 22 | Elm | 20 ins. | S. 32° 30′ E. | 21.1 ft. |
| | Willow | 18 ins. | N. 38° 30′ W. | 7.3 ft. |
| No. 24 | Cottonwood | 5 ins. | N. 71° 30′ W. | 7.3 ft. |
| No. 25 | Cottonwood | 5 ins. | N. 84° 30′ E. | 29.0 ft. |
| | Cottonwood | 5 ins. | S. 28° 00′ E. | 9.9 ft. |
| No. 26 | Cottonwood | 8 ins. | N. 64° 15′ E. | 10.6 ft. |
| | Cottonwood | 8 ins. | S. 11° 30′ E. | 4.0 ft. |
| No. 27 | Cottonwood | 7 ins. | N. 61° 00′ E. | 15.8 ft. |
| | Cottonwood | 6 ins. | S. 86° 45′ W. | 25.1 ft. |
| No. 28 | Cottonwood | 7 ins. | S. 54° 30′ E. | 19.1 ft. |
| | Cottonwood | 7 ins. | N. 40° 00′ W. | 52.1 ft. |
| No. 29 | Cottonwood | 12 ins. | N. 16° 00′ W. | 93.7 ft. |
| | Cottonwood | 8 ins. | S. 55° 15′ W. | 152.5 ft. |
| No. 30 | Cottonwood | 10 ins. | S. 6° 00′ W. | 24.4 ft. |
| | Cottonwood | 12 ins. | N. 73° 30′ W. | 40.9 ft. |

Map No. 12, showing Pitts Bend and Allen Island, is inserted here:



Golden Bluff.

(No Map.)

Location:

Lamar County, Texas, About 20 miles northeast of Paris.

Texas Original Surveys:

Jas. Stonum. H. & G. N. R. R. Co., Nos. 1 and 2. Henry Stonum.

Choctaw County, Oklahoma. About 15 miles southeast of Hugo. Opposite Sections 9 and 10, T. 8 S., R. 18 E.

Principal Witnesses:

Mrs. S. A. Gill, Powderly, Lamar County, Texas. H. F. Tinnin, Paris, Texas. H. M. Womack, Medill, Lamar County, Texas. Eli Tinnin (colored), Route 1, Medill, Lamar County, Texas. Louis Williams (colored), Powderly, Lamar Co., Texas.

Summary of Testimony:

In the past the Red River has occupied three separate positions here: one to the north, one to the south, and one in the middle. When the river changed from one position to another is not definitely known, although the general belief is that the changes were made by avulsion. The fact that the river once flowed in the northernmost channel is legendary in the memory of one or two of the most aged citizens of the community; that it flowed in the southernmost channel is remembered by a few very old residents, but they cannot fix the dates when it flowed there. Whereas it has been flowing in the middle channel, its present position, about as long as the oldest inhabitants can remember, some forty years or more. From the beginning the middle channel has been recognized by Texas on the south side and by the United States on the north side. The surveys of both governments stopped at this channel. No part of the area on the north side has been patented by Texas, and no part on the south side has been patented by the United States. There are no overlapping surveys and no unsurveyed areas. There are no disputes between landowners on opposite sides of the channel such as would arise from conflicting surveys. The dividing line for taxation in

Texas and in Oklahoma has always been this middle channel, where the Red River is now.

Field Work: - Conclusions.

Going upon the ground, we identified the two old river channels, the northern and the southern, and found the river now flowing in the middle one, as described at the hearing. The old north and south channels were abandoned by the river many years ago. They are now filled with river earth, and portions of them are in cultivation. They are visible and can be followed most of the way, but in places the old river banks cannot be traced with certainty. Between these two old channels and the present position of the river the land is noticeably higher, and where not in cultivation it is covered with virgin timber, large and very old. On this cultivated ground large stumps of walnut, pecan, oak and bois d'arc remain in place. The surface evidence as well as the testimony of the oldest inhabitants indicates that the river, as far back as we can trace it, did not go from one of these positions to the next by erosion and accretion. Nevertheless the exact nature of the avulsions, if such they were, is much obscured by the many years that have elapsed since the changes occurred. There is no record evidence that the Red River at this place, once flowed around abrupt bends, or subsequently cut them off. If it did, these facts were not impressed upon the memory of any of the witnesses, and they did not so describe the river. On the contrary, they said nothing about cut-offs, and invariably referred to these abandoned channels as "old river runs." Neither did they recall that the river had ever reversed the direction of flow through any of these old channels. Long ago, the river may have flowed eastward through all three of these old passage-ways, or it may have alternately used certain ones, and abandoned others, as obstructions formed in them. There is no convincing evidence to show just how and when these changes occurred, or to fix the position of the river in 1821. The evidence is gone with the passing of the years, and we are left to specu-

In view of this fact, and considering the further fact that the present position of the river was universally recognized as the boundary as long ago as can be established, we conclude that the boundary line in this area is on and along the south cut-bank of Red River where it flows today, and does not require to be surveyed or marked upon the ground.

Slate Shoals Bend.

(No Map.)

Location:

Lamar County, Texas, About 20 miles northeast of Paris.

Texas Original Surveys:

Henry Stonum. L. W. Tinnin (eastern). L. W. Tinnin (western). J. H. Williams.

Choctaw County, Oklahoma. About 15 miles southeast of Hugo. Opposite Sections 11, 12, 13 and 14, T. 8 S., R. 18 E.

Principal Witnesses:

R. P. Draper, County Surveyor, Hugo, Oklahoma. H. M. Womack, Medill, Lamar County, Texas. J. W. Crook, County Surveyor, Paris, Texas. J. M. Maxfield, Chicota, Lamar County, Texas.

Summary of Testimony:

The Red River occupied a fixed channel, as long ago as can be determined, in a sharp bend known as Slate Shoals. The surveys by Texas on the south and by the United States on the north conform to this channel, and the river made no important change in its position until about 1908. A flood in 1908 and several in 1915 caused the river to make extensive erosions along the Oklahoma side and accretions to the Texas side. The erosion and accretion have continued, and now the river is about a mile and a half to the northeast of its former position as shown by the Oklahoma surveys of 1897. The new area formed by accretion to the Texas side and lying between the old channel at Slate Shoals and the present channel to the northeastward now takes in the area that was heretofore covered by all of the southeast quarter of Section 11, all of the southwest quarter of Section 12, and all of fractional Sections 13 and 14, in T. 8 S., R. 18 E., in Oklahoma, in all about 600 acres.

Field Work: - Conclusions.

We found upon examining this area that the information obtained from the records and maps and from the witnesses at the hearing agrees with the facts on the ground. The evidence is clear and the movement of the river is simple. There are no indications whatever of an avulsive change. There is not a trace of a former Oklahoma cut bank nor any continuous depression within this area that might have been a former channel of the Red River. There is not a tree or stump the age of which antedates the Oklahoma surveys made in 1897. The accretion attaching to the former Texas bank on the west and south sides of the area has a gradual slope toward the present position of the river. Part of it is now in cultivation. The river deposit on the south and southeast part of the area has been irregular, and has left a lake of considerable size; but there is nothing to indicate that the Oklahoma cut bank was left intact along the north side of this lake. On the contrary, the physical evidence shows that the former Oklahoma cut bank was completely destroyed as the river worked its way to the northeastward.

We conclude that the river changed its position from where it was at Slate Shoals in 1897 to where it is now by the natural and gradual processes of erosion on the Oklahoma bank and accretion to the Texas bank; and that the boundary line is on and along the south cut-bank of the river in its present position and does not require to be surveyed

or marked out upon the ground.

Five copies each of the report and maps have been sent today by registered mail to the Attorney General of the United States, the Attorney General of Texas, the Attorney General of Oklahoma, and the County Judge of each of the counties in the States of Texas and Oklahoma bordering on the part of the interstate boundary line covered by this report. We have also filed with the clerk of the court two hundred copies of the report and maps for the use of such interested parties as may apply for them. Two hundred additional copies of the report and maps have been filed with the clerk for such distribution as the court may direct.

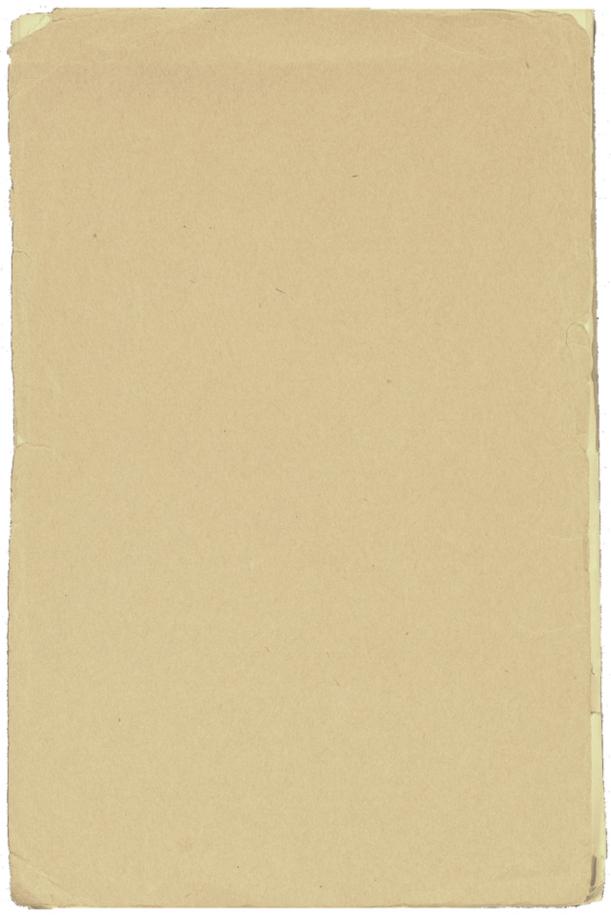
Respectfully submitted,

ARTHUR D. KIDDER, ARTHUR A. STILES,

Commissioners.

Washington, D. C., November 16, 1925.





TEXAS-OKLAHOMA BOUNDARY SURVEY

The information contained herein is a brief summary of the lands surveyed and the lands not surveyed in the dispute between the State of Oklahoma vs. The State of Texas, concerning the boundary between the two states. This work follows the Red River from the Texas, Arkansas, Oklahoma border through its many meanderings westward until it again becomes a mere river and not the basis of a boundary. Land not surveyed to determine the disputed boundary will follow the boundary line as found on the maps in the General Land Office.

Map No. 21 includes the below listed lands along the Red River.

Location:

McCurtain County, Oklahoma.
About 15 miles southeast of Bokhoma, Oklahoma.
About 9 miles southwest of Foreman, Arkansas.
Opposite Sections 27, 28, 29, 30, 31, 32 and 33, T. 10.S.,
R. 27 E., and Section 4, T. 11 S., R. 27 E.

Bowie County, Texas
About 10 miles northeast of De Kalb.

Texas Original Surveys.

Thomas F. Titus Randolph C. Harris Andrew I. Titus William H. Boyce

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Thomas F. Titus survey to a point on the river made by the extension of the east boundary line of the R. M. Madden survey into the John H. Dyer survey in Bowie County.

Map No. 20 includes the below listed lands along the Red River.

Location:

Bowie County, Texas.
About 11 miles northeast of De Kalb.

Texas Original Surveys

David Sayers
Henry Gilliam
Alexander Graham
J. G. Wright
John H. Dyer

Nathaniel D. Ellis James W. Luper B. S. Tipton David R. Mathews

McCurtain County, Oklahoma

About 10 miles south of Bokhoma.

Opposite Sections 14, 15, 16, 21, 22, 23, 26, and 27., T. 10 A., R. 26 E.

Map No. 19 continues the border survey from the David Sayer survey to the Abijah Burkham survey.

Location:

Bowie County, Texas

About 12 miles north of De Kalb

Texas Original Surveys

Abijah Burkham H. N. Cleveland Seymore Peck Sampson D. Straley Stephen B. Johns David Sayers William Hobbs Peter M. Keeton James Gilliam

McCurtain County, Oklahoma

About 11 miles south of Haworth

Opposite Sections 11, 12, 13, 14 and 24, T. 10 S., R. 25 E. and Sections 7, 8, 17, 18, 19, and 20 T. 10 S., R. 26 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is a small length of the Red River between the Abijah Burkham survey and the Jeremiah Walker survey in Bowie County.

Map No. 18 continues the border survey from the Jeremiah Walker estate to the edge of Bowie County and into Red River County to the northwest edge of the Hugh B. Shaw survey.

Location:

Red River and Bowie Counties, Texas About 20 miles northeast of Clarksville

Texas Original Surveys

Hugh B. Shaw George F. Lawton Jeremiah Walker John Stiles William Nall

McCurtain County, Oklahoma.

About 15 miles southeast of Idabel.

Opposite Sections 36, T. 9 S., R. 24 E. Sections 1 and 12, T. 10 S., R. 24 E. Section 31, T. 9 S., R. 25 E., and Sections 4, 5, 6, 7, 8, 9, and 16 T. 10 S. R. 25 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Hugh B. Shaw survey to about midway of the Isaac Tyler survey, in Red River County.

Map No. 17 continues the border survey from the Isaac Tyler survey to the northwest edge of the J. J. Ward, Jr. survey.

Location:

ReduRiver County, Texas About 17 miles northeast of Clarksville

Texas Original Surveys

J. J. Ward, Jr. J. J. Ward, Sr. Isaac Tyler

McCurtain County, Oklahoma

About 10 miles south of Idabel. Opposite Sections 16, 17, 18, 19, 20, 21, 28, 29, and 30 in T. 9 S., R. 24 E.

Map No. 16 continues the border survey from the northwest corner of J. J. Ward, Jr. survey to the northwest edge of the Roland T. Bryarly estate.

Location:
Red River County, Texas
About 16 miles northeast of Clarksville

Texas Original Surveys

Roland T. Bryarly (eastern) Roland T. Bryarly (western) David Clap

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from Roland T. Bryarly (western) survey to the William Stoneham survey in Red River County.

Map No. 15 continues the border survey from the northeast edge of the William Stoneham survey to the northwest edge of the Gabriel Martin Survey.

Location:
Red River County, Texas
About 16 miles northeast of Clarksville

Texas Original Surveys

John P. Lincecum

William Stoneham

McCurtain County, Oklahoma
About 9 miles southwest of Idabel.
Opposite Sections 28, 29, 32, and 33 in T. 8 S., R. 23 E., and Section 4 in T. 9 S., R. 23 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the northwest edge of the Gabriel Martin survey to the Robert Gamble survey in Red River County.

Map No. 14 continues the border survey from the northeast edge of the Robert Gamble survey to a short distance east of the northwest corner of the N. M. Ricker and Novel Scarborough survey.

Location:
Red River County, Texas
About 20 miles north of Clarksville

Texas Original Surveys

Novel Scarborough Nathaniel M. Ricker Marquis D. Wright Robert Gamble

McCurtain County, Oklahoma
About 6 miles south of Valliant
Opposite Sections 25, 26, 35, and 36, T. 7 S., R. 21 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the east part of the Novel Scarborough survey to the eastern edge of the Juan A. Sequin survey in Red River County.

Map No. 13 continues the border survey from the eastern edge of the Juan A. Sequin survey to the Lamar, Red River County Line.

Location:

Red River County, Texas.
About 25 miles northwest of Clarksville.
About 17 miles north of Detroit

Texas Original Surveys

William K. Revier Elish Simmons Samuel Lakin Joseph Atkinson Marquis D. Wright T. F. Brewer

Choctaw County, Oklahoma

About 8 miles south of Ft. Towson.

Opposite Sections 2, 3, 10, 11, in T.8 S., R. 19 E., and Sections 25, 26, and 35 and 36 in T. 7 S., R. 19 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Lamar, Red River County line to the northeast edge of the eastern Lawrence Tinnin Survey in Lamar County.

Lands not surveyed but upon which public hearings were held to determine the Oklahoma, Texas border are:

Slate Shoals Bend (no map)

Location:

Lamar County, Texas
About 20 miles northeast of Paris

Texas Original Surveys

Henry Stonum
J. H. Williams

L. W. Tinnin (eastern)
L. W. Tinnin (western)

Choctaw County, Oklahoma.

About 15 miles southeast of Hugo.

Opposite Sections 11, 12, 13, and 14, T. 8 S., R. 18 E.

The boundary commissioners concluded that even though the river bordering the above surveys had changed its bed, there was no disputes and therefore no reason for a survey. The boundary line follows the present south cut bank of the river.

Lands not surveyed but upon which putlic hearings were held to determine the Oklahoma, Texas border are:

Golden Bluff (no map)

Location:

Lamar County.

About 20 miles northeast of Paris

Texas Original Surveys

Jas. Stonum H. & G. N. R. R. Co., Nos. 1 and 2. Henry Stonum

Choctaw County, Oklahoma.

About 15 miles southeast of Hugo.

Opposite Sections 9 and 10, T. 8 S., R. 18 E.

The Boundary Commission concluded that the river is now flowing through a center channel and has done so for the last 40 years. That Texas Surveys have come up to the center channel and U. S. Surveys on the other side, consequently since the boundary was universally recognized along the south bank of the Red River as it flows today.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Jas. Stonum survey to the northeast edge of the Samuel Fulton survey.

Map No. 12 continues the border survey from the northeast edge of the Samuel M. Fulton survey to the Thomas King survey.

Location:

Lamar County, Texas.
About 16 miles north of Paris.

Texas Original Surveys

Barley Pitts George Bacon
Thomas King John W. Tyson
James D. Allen Wm. B. Wright
J. J. Cochran Wm. B. Wood

Samuel Fulton Wm. M. Fulton

Choctaw County, Oklahoma

About 10 miles south of Hugo

Opposite Sections 32, 33, and 34, T. 72. S, R. 17, E., and Sections 3, 4, 5, and 16, T. 8 S., R. 17 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the eastern edge of the Thomas King survey in Lamar County to the John G. Jouett survey in Fannin County.

Map No. 11 continues the border survey from the northeast edge of the John G. Jouett survey to the northwest edge of the Alexander Russell survey.

Location:

Fannin County, Texas
About 23 miles northeast of Bonham

Texas Original Surveys

Willis A. Moore Alexander Russell John G. Jouett

Bryan County, Oklahoma. About 14 miles south of Bennington, Oklahoma. Opposite Sections 12, 13, and 24, T. 8 S., R. 12 E. and Sections 7 and 18, T. 8 S., R. 13 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Alexander Russell survey to the northeast edge of the Felix G. Sadler survey in Fannin County.

Lands not surveyed but upon which public hearings were held to determine the Texas, Oklahoma border are:

Blum Lake

Location:

Fannin County, Texas About 20 miles northeast of Bonham

Texas Original Surveys

Felix G. Sadler John R. Garnett Margaret Garnett

Bryan County, Oklahoma.

About 15 miles southwest of Bennington. Opposite T. 8 S., R. 12, E.

The Boundary commission concluded that the boundary line along the above named surveys follows the south cut-bank of the river as it is today. There are no conflicting claims to this land.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Felix G. Sadler survey to the northeast edge of the John A. Haynie survey, in Fannin County.

Map No. 10 continues the border survey from the northeast edge of the John A. Haynes survey to the southwest edge of the Mark R. Roberts survey.

Location:

Fannin County, Texas. About 16 miles north of Bonham

Texas Original Surveys

Jabez Fitzgerald

Bryan County, Oklahoma. About 25 miles southeast of Durant. Opposite fractional Sections 32 and 33, T. 8 S., R. 11 . and fractional Sections 4 and 5, T. 9 S., R. 11 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the southwest edge of the Mark R. Roberts survey to Caney Creek adjoining the N. T. Journey survey in Fannin County.

Map No. 9 continues the border survey from Caney Creek adjoining the N. T. Journey survey to the Grayson County line.

Location:

Fannin County, Texas.
About 15 miles northwest of Bonham.

Texas Original Surveys

N. T. Journey William Cottle
Joseph Jeffries William Martin
Joseph Murphy Silas Cox

Bryan County, Oklahoma
About 25 miles southeast of Durant.
Opposite Sections 1, 2, 10, and 11, T. 10 S., R. 9 E.

Grayson County

The Boundary commissioners in a public hearing at Sherman, Texas, May 7, 1925 concluded that since there were no avulsive changes in the position of the Red River in Grayson County, there was no need for any survey.

Jesse Wallace

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the Cooke, Grayson County line to the northeastern edge of the H. Scanland survey in Cooke County.

Map No. 8 continues the border survey from the northeastern edge of the H. Scanland survey to the southeast edge of the J. W. Gibbin survey in Cooke County.

Location:
Cooke County, Texas.
About 15 miles northwest of Gainesville.

Texas Original Surveys

J. W. Gibbins John Steele Manuel Charo
S. Miller John M. Swisher Benjamin Scanland
M.E.P.A.P.R.R. Co. Thomas Booker

About 15 miles southwest of Marietta.
Opposite Sections 3, 4, 9 and 10, T. 9 S., R. 1 E. and Section 34, T. 8 S., R. 1 E.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River from the southeast edge of the Jno. W. Gibbons survey in Cooke County to the Montague County line.

Montague County

The Boundary Commissioners by public hearings in Nocona, Texas, April 27, 1925, and Montague, Texas, April 28, 1925, found no avulsive changes in the position of the Red River in Montague County and have made no survey.

Clay County

The Boundary Commissioners by public hearings in Henrietta, Texas, April 16 and 17, 1925 found no avulsive changes in the position of the Red River in Clay county and have made no surveys.

Lands not included in the survey to determine the Texas-Oklahoma boundary is the portion along the Red River from the Clay county line to the northeast edge of the western Bryant Brown survey in Wichita County.

Map No. 6 continues the border survey from the northeast edge of the Bryant Brown survey to the northwestern edge of the John Deck survey.

Location: Wichita County, Texas. About 12 miles north of Wichita

Texas Original Surveys

Wm. H. Anderson John Johnson John Deck M. Gilbert N. Salinas

Cotton County, Oklahoma About 12 miles southeast of Devol. Opposite Sections 31, 32, and 33, T. 5. S., R. 12. W.

Lands not included in the survey to determine the Texas, Oklahoma boundary is the portion along the Red River boundary from the Wichita, Wibarger County line to a point about in the center of the Mrs. Eliza J. Littleton survey in Wichita County.

Map No. 7 continues the border survey from a middle point in the Eliza Littleton survey in Wilbarger County to the No. 1 G. C. and S. F. R. R. Co. Survey in Hardeman County.

Location:

Hardeman and Wilbarger Counties. At the north end of the line between these two counties.

Texas Original Surveys

G.C. & S.FR.R. Co. Nos. 1 and 2 Mrs. Eliza J. Littleton Frac. 2, M. A. Sams & J. G. Ayers J. G. Ayers MargaretaA. Sams

Jackson County, Oklahoma About 20 miles southwest of Altusa Opposite Sections 11, 12, T. 2 S., R. 22 W. Hardeman and Childress Counties

The Boundary Commissioners by public hearings in Quanah, Texas, April 14, 1925, found no avulsive changes in the position of the Red River in Hardeman and Childress Counties, and have made no surveys except at Ayers Island which is described under Wilbarger County. TEXAS-OKLAHOMA BOUNDARY ALONG RED RIVER
IN UNITED STATES SUPREME COURT AREA "A"

TRANSCRIPT OF MEMORANDA

OF ARTHUR A. STILES, COMMISSIONER

MARCH-JULY 1923

(4) "The so far as the Supreme Court is concerned, you need not resign your regular positions to do the work as Commissions." The Stiles, you may take the necessary time to attend tour regular duties as State Reclamation Engineer. Tou may return to your Austin office from time to time as needed, just you would return home if your wife became sick! In so far a fine State of Texas is concerned in this, however, you must select Governor and your Attorney General; they will properly a rise you."

(a) "The work must be done in the best professional manner it must be accurate. Maps must accompany the report, and you

(f) "Be nost careful about writing your report. Confer fall by with your attorneys as to form, then confer with me (van be vanter) before filing your report. Don't file anything until you have conformed with me, --but when the report is filed it must be your report, --not mine."

them know that you are in search of the true facts. In the case of one bee the season will have to make your own determination, but you will do well to talk to the 'old nettlers' also,

vill also mark the north but bank and lay the 'medial line' exactly: this must be very accurately done, as the position of oil wells may be affected.

(1) Mr Justice Van Devanter drew a sketch of islands, thus

IN THE SUPREME COURT OF THE UNITED STATES.
NO 18 ORIGINAL. OCTOBER TERM, 1922.

PARTIAL DECREE (MARCH 12, 1923) RELATING TO STATE BOUNDARY.

COMMISSIONERS APPOINTED TO MARK THE BOUNDARY: ARTHUR D. KIDDER AND ARTHUR A. STILES.

MEMORANDUM BY ARTHUR A. STILES, MARCH 16, 1923.

This evening, between the hours of five and seven, Mr Justice Van Devanter held a conference at his home in Washington; and in the presence of Judge Dyar, attorney for the United States, and Gen. T. W. Gregory, attorney for Texas, he instructed Mr Kidder and me as to the proper manner of marking out the boundary line. I made note of his remarks and instructions, which I relate or directly quote as follows:

- (a) As Commissioners we were selected because "the Court, after enquiry, thought you owere two men that could be depended upon to do the work accurately, honestly, with dispatch, and without favor or prejudice." He expressed appreciation of our having been willing to do the work, and thanked me personally for having come up from Texas so promptly upon his request that I should do so.
- (b) As commissioners were are not to be the representatives of the United States, the State of Oklahoma, or the State of Texas. He said with great emphasis, "You are to be the representatives of the Supreme Court of the United States."
- (c) "The Court understands that you are both men that can camp out, and have all the necessary skill and experience to do the work that is before you."
- (d) "In so far as the Supreme Court is concerned, you need not resign your regular positions to do the work as Commissioners." "Mr Stiles, you may take the necessary time to attend to your regular duties as State Reclamation Engineer. You may return to your Austin office from time to time as needed, just as you would return home if your wife became sick'. In so far as the State of Texas is concerned in this, however, you must see your Governor and your Attorney General; they will properly advise you."
- (e) "The work must be done in the best professional manner. It must be accurate. Maps must accompany the report, and you must make 'very fine maps for the report'".
- (f) "Be most careful about writing your report. Confer fully with your attorneys as to form, then confer with me (Van Devanter) before filing your report. Don't file anything until you have conferred with me, --but when the report is filed it must be your report, --not mine."
- (g) "Be friendly with the people along the river, and let them know that you are in search of the true facts. In the case of ox-bow bends you will have to make your own determination, but you will do well to talk to the 'old settlers' also."
- (h) "In marking the south cut bank of the Big Bend area, you will also mark the north cut bank and lay the 'medial line' exactly: this must be very accurately done, as the position of oil wells may be affected."
 - (i) Mr Justice Van Devanter drew a sketch of islands, thus:

He said, suppose the land is accreting toward the islands from the mainland, and also toward the mainland from the islands (as shown by the arrows), then, in that case, the boundary would not be at the cut bank on the mainland,

mainland, but would be along the

medial line as indicated by the broken line.

- (j) Mr Justice Van Devanter was pleased when I told him what the Texas Legislature thought of the case, and that my opinion was the suitable appropriations would be made by Texas to carry forward the work.
- (k) Mr Justice Van Devanter said Mr Kidder and I could come back for further instructions, if we had to have them; but, he said. "don't come too often."

Additional subjects mentioned by Justice Van Devanter in his remarks in conference 5--7 P.M., March 16, 1923:

- 1. All claims must be subordinate to State and United States claims.
- 2. Rate of compensation of Commissioners will be fixed by the Court, -- "but not now."
- 3. Report of the Commissioners must be "responsive" to the decree.

SECOND CONFERENCE.

March 27, 1923 (Tuesday).

Between the hours of 8:10 and 9:15 P.M. yesterday evening (26th) Mr Kidder and I met in conference with Justice Van Devanter at his home at 1923 Sixteenth St. The appointment was made by Justice Van Devanter by telephone with me while I was in the clerk's office, just after the oath of office.

At the conference Mr Justice Van Devanter examined Mr Kidder's Indian allotment map, proofread the wording here and there, and examined the medial line laid down by Mr Kidder on his map. He was pleased when I told him the map was a first proof, and we could change anything he wanted changed. I suggested that we might show him proofs of our other maps before printing them if he wanted to see them. He liked the suggestion, and said he would like to have us show them to him before we printed them. He said he felt very "comfortable" about our selection as commissioners, because he knew we would do splendid work; that he knew he could rely upon us. He complimented Mr Kidder's map.

Mr Justice Van Devanter explained that any oil well located upon the bank, but by washing from the river, left standing out in the river bed after a rise in the river, was lost to the former owner; and that on the other hand a well in the river bed left standing on fast ground by deposits of permanent character placed by the river was lost to the United States. He said some men had complained that the Receiver had built "wing dams" that changed the river: he told us to look carefully for the bank, especially in such places, and when we found it, to stand firm. He wanted us to mark out with great care the medial line and then locate the oil wells with reference thereto, when such wells were close to the line. He said he wanted us to keep a separate account of the cost of the work along the medial line, as such work was of no interest to Texas, and should not be paid by Texas. He also spoke of the interest that various tracts would have in the riparian rights to the river bed. He made no reference to what maps we would get up, or what surveys we would make; that he "left all that to us."

We told him we would use our regular men and would get to work in a short time after I returned to Austin.

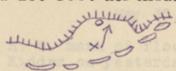
He asked me what the Texas Exhibits stored in the basement of the Capitol consisted of. I explained as well as I could, and he said I could take them all to Austin. He told me to see Marshal Green and have him telephone to Justice Van Devanter for authority to give me the stuff.

Judge Van Devanter thanked us for coming to see him, and dismissed us with "God bless you."

ANGLE POSTS ON BOUNDARY .

Sunday (. M.), May 27, 1923.

No 4 should be moved 160 feet northeast, nearer to cut bank.



No 2 is in bad position -- behind bush. Should be 5 or 10 feet farther north. Hard to find post.

No 5 is on bank ten feet high. Should be moved about 200 feet north to cut bank that is about three feet high. This is a place where accretion is taking place.

No 25 is 0. K. This post contradicts other posts that are high up on flood plain.

No 19 must be moved far to north across a creek to be on the present cut bank.

Stop inspection at No 30, which is O. K. 3:50 P. M.

No 23 must move north 250 feet to present cut bank. It is on an old cut bank, but accretion has taken place and new cut bank is 250 feet to north. May flood reached and washed new cut bank, but did not overtop it.

No 22 must be moved north 310 feet for same reasons as No 22.

No 21 must be moved 270 feet to north, or 150 feet to east, for same reasons as Nos 23 and 22.

No 20 must be moved to north also for same reasons.

ANGLE POSTS ON BOUNDARY BANK.

May 31, 1923. 8:45 A. M.

Angle point 81 is 21 feet south of cut bank.

HIGH WATER MARKS OF FLOOD OF MAY 15, 1923, IN RED RIVER, SUPREME COURT AREA "A".

(a)

May 30, 1923. 2:30 P. M.

At initial point. H. W. mark of flood of May 15, 1923, as indicated to me by Mr Kidder on yesterday. My mark is a piece of 1x3 hoard driven into the ground near cut bank about 54 feet north of Initial Point post. Mark is two 10d. nails driven through the board stake at the level of the ground. These nails may be as much as four (4) inches below the flood level; they are certainly not above it. H. W. is estimated to be 6 or 7 feet above sand bed.

(b)

At angle point No 5. H. W. Mark of May 15, 1923, as pointed out to me by Mr Kidder on yesterday. A pecan stake one inch in diameter driven into the ground about 10 feet northeast of post 5 and about 5 feet below the level of the ground at the post. The peg sticks out of the ground only about two inches, and the H. W. mark is the top of thepeg. When Mr Kidder and I visited this point yesterday we estimated the H. W. to be about 6.5 or 7 feet above the average elevation of the river sand bed at this point.

3 P? M. May 30, 1923.

(c)

May 30, 1923. 4:15 P. M.

At Burkburnett bridge. H. W. Mark of May 15, 1923. A big spike nail in the upstream pile of the fourth set from the Texas end of the bridge, about 14 inches above the top edge of the lower horizontal double brace, and about five feet above the sand bed and running water. Nail is set by much new drift caught on the upstream piles clear across the river? Level is very well marked, and there is no doubt about the accuracy of the H. W. level. A ring has been chopped around the pile at this nail.

(d) May 30, 1923. 4:45 P.M.

At Devol toll bridge. H. W. of May 15, 1923. A big spike nail in the upstream pile of the fifth set of piling north of the Texas cut bank. A ring is chopped around the pile at the nail. The nail was set from quantities of new drift caught on each upstream pile of the bridge clear across the lower part of the sand bed. The flood was not as deep here as at Burkburnett bridge.

(e)

May 30, 1923. 4:55 P. M.
At angle post No 74 above Devol toll bridge. H. W. of May 15, 1923, came up and spread over the low flat ground about six (6) feet due north of the angle post. The H. W. mark is very plain on the ground. The edge of the flood water was six feet from the angle post at the nearest place. The ground at the post (74) was about four-tenths (4/10) of a foot above the level of the H. W. The post is 30 feet south of the cut bank boundary.

(f)

May 30, 1923. 5:10 P.M.
At angle post No 71. H. W. of May 15, 1923 was six temths (6/10) foot below the ground surface at the post. Good mark.

EXAMINING ANGLE POSTS IN COMPANY WITH MR KIDDER.

June 23, 1923. 10 A.M.

Angle Post

(At Grandfield bridge.) 4 feet south of cut bank boun-No 130 dary .

5 feet south of cut bank boundary. No 131

No 132 No 133 3

10 11 10 3 No 134 11 11 10 11 11

19 No 135 11 11 10 .

No 136 3

No 137 (Not on Stiles's cut bank). 2 feet from Kidder's cut bank.

No 138 to 148 inclusive. Stiles's cut bank far to north .--Tentatively disagree from No 137 to No 149.

No 149 3 feet south of cut bank boundary.

No 150

Note .-- Disagree on 151 and 152. Stiles should set intermediate point on cut bank between Nos 152 and 153.

No 153 0. K.

No 154 0. K.

(Continued -- see below.)

Angle post No 141 is at northeast corner of Texas Powell survey No 820.

Well No F. R. 152. No indication of river water in last rise coming around to the south of this well. Absolute proof everywhere that water came from bluffs, and went to south of well, afterward passing under south end of bridge and entering river at point below. Big ditches cut by water from hills have just been filled up.

No 155 is one (1) foot from cut bank boundary.

No 156 on the boundary bank -- a 10-inch cottonwood about

northeast 6 feet.

9. K. Post 157 is about 50 feet too far south.
Well No F. R. 169 is in Texas.
is 4 feet south of cut bank boundary.
""" Well F. No 158

No 159

No 160 Well F. R. 172 is in river bed.

No 161 is 1 foot south of cut bank boundary.

No 162 0. K.

to be moved north 2 feet. No 163

No 164 is 2 feet south of cut bank boundary.

cottonwood. 3-in. dead cottonwood. No 165 " 2 "

June 25.

On the river with Mt Kidder, Mr Dabney, Mr Durant, Mr Lums-den and Joiner. Visited post 5, Burk Bet Island, and posts 154 etc.

June 26.

On the river at posts 41 to 37.

Note .-- Make 2 complete sets on plane table sheets (18x24) in blue for Mr Kidder. Send to Grandfield.

Spent day with Kidder on Texas side Red River just above Burkburnett bridge. Went along bank with him and discussed meaning of the opinion and decree. Showed him how river would be more than "substantial flow" before water ever reached the place where it could go through by -pass and make island where he thought was island -- where oxld oil well is. I took him out over sand bed and showed him 2-1/2-foot sand bank water would have to come over before it reached place to go through. Told him I would not call it an island. Afterwards went up bank, looking it over with him (about fourth time together) and then sat down under cottonwood tree and read opinion and decree to him and debated and argued why I thought both meant "substantial flow" -- covering "all of sand bed" but no higher -- that was stage indicating the boundary bank. But, nothing doing -- he had not moved quarter of an inch. Stated that the whole opinion and decree meant "mean high water". Whereupon I wrote those three words down on the top of my boot, gave him my copy of opinion and decree, and asked him to find them anywhere in either paper. He searched for about twenty minutes, but could not find the expression "mean high water" anywhere, but then said, "Well, it all means that any way from beginning to end."

After that I said I did not see any use of our trying any longer to agree. He was basing his judgment on a flood 6 feet deep. He agreed with me that there was no use -- That Judge Van Devanter would take his view, and I would feel very foolish. That he was right and I was wrong . -- Said, "I havebeen very patient with you, Mr Stiles." He became very mad and rather insulting, and I had to caution him not to make boyish, unwise statements -that he was very mad, and would regret doing so. Later on when I told him that I could be reached by telephone at Wichita Falls, he said he did not think he cared to communicate any further, that I caused him to lose time and we didn't get any-where. Before we parted that day I told him that I thought we were so far apart on our "river stage" that we could not agree upon the bank, and to save time we should confer with Judge Van Devanter. He became very mad at this suggestion, and declined to join me in requesting a conference. I told him, in that case, I would request it on my own responsibility. Then he became very mad, and almost insulting. Told me to be sure and "tell the truth" when I wrote to Judge Van Devanter. I said, "I hope you don't think I would tell him anything else." Then he went on complaining that I had done so little in the boundary work--had not done this, and had not done that--found fault with me every way he could, and mentioned all the little things he could think of. Said he had to put up his own money, etc., etc. Said I would not "stay put"; -- that I agreed with him in Washington, D. C., all along, but had changed for some reason or other. Said on the one hand that I had been with him so little--then said I had caused him so much loss of time. Finally I remarked that we were as far apart now as we were in the beginning. In reply he said, "We are further apart now than we were then." Throughout the whole day I kept my temper admirably (for me) and made no hot statements.

To-day I went by Ford car from Wichita Falls to Vernon. thence to the island in the Red River where the Hardeman and Wilbarger county line strikes the river, as mentioned in the & decree. I walked all around the island, and examined it and the mainland on the Texas side. Spent about three hours walking around and studying the cut banks of the island and the mainland. Returned to Wichita Falls that evening. Left Wichita Falls about 7 A.M. and returned about 7:45 P.M. Excellent roads all the way, and went along fast. The river "wash" through the land that cut off the island is about one to two hundred feet wide. It is a clean sand bed all the way, and is used by the river whenever the water in the river gets about two feet (maybe 2-1/2 or possibly 3 feet) deep over the main portion of the sand bed to the north. With about two or two and a half feet of water over all the main sand bed above and below the island. I think the water will be going through the cut-off channel between the island and the mainland of which the island was said (by the Court) to have been part. This is what I would call and "honest-to-God" island, and if the Court wanted to show us what a cut-off was, and what an island was, this is an unmistakable and admirable sample. Glad I went to look at it. There is no guesswork or scientific speculation about it--it is an island. And there is no "growing together", or closing up, about it and the mainland.

On this trip I arrived Wichita Fallas July 11, 2 P. M. Left 1:15 P? M. July 14, 1923. Conferred with Penick's party and Floore's party, and arranged their work.