

# SEMPCO, INC.

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2 June 1992

Mr. Garry Mauro, Commissioner  
Texas General Land Office

File No. Sketch File 10  
Bowie County  
Survey Report - Brose Medford Survey

Filed September 15 19 92

Re: Brose Medford Survey, Abstract 1035 (unpatented)  
School File 149383  
Bowie County, Texas

GARRY MAURO, Com'r

By Douglas Howard  
See Bowie Rld. Sk. 6, 6A

Dear Mr. Mauro:

In January, 1990, we were commissioned by the United States Corps of Engineers, Fort Worth District to survey the boundaries of the referenced 320 Acres of unpatented land. We have now completed the survey, and this report is submitted for your review, and to explain how the work was performed and what we found.

### FACTS

We personally researched the General Land Office records and acquired copies of documents about the Brose Medford Survey and the surrounding surveys. Because it tells quite well and succinctly the same general information that we found while reviewing the G.L.O. records, we have attached a copy of the Certificate of Facts dated 19 October 1982 to Mr. Tom Frank Worsham, and signed by Mr. Bob Armstrong, Commissioner.

The subject land lies north of and adjacent to the Sulphur River (the Sulphur Fork of the Red River) on the line between Bowie and Cass Counties, about 8000 varas East of the line common to Cass and Morris Counties. The Sulphur River is a navigable stream, and this part of it is above (West of) Wright Patman Lake.

The Brose Medford Survey has until now only been described as the west 1/2 of the T & P Railway Company Survey No. 16, Block 4, Scrip File No. 356. This T & P Rwy. Co. Survey of 640 acres exists by virtue of Land Scrip Certificate No. 1/766, and was surveyed 30 Nov. 1875 by J. H. Smelser, Deputy Surveyor of Bowie County, and corrected by him 9 May 1877. The Survey adjoining T & P No. 16, Block 4 on the East is also 640 acres. It is known as T & P Rwy. Co. Survey No. 15, Block 4, and was granted under the same Certificate No. 1/766. The T & P No. 15 Blk. 4 was surveyed by Mr. Smelser on 10 November 1875, employing the same chain bearers he used on No. 16, Blk.4.

There are three Surveys important to our construction of the Brose Medford Survey that are senior to the above mentioned T & P Rwy. Co. Surveys. These senior tracts were all surveyed in a one-week period by M. J. Knight, District Surveyor, Bowie District. He used different personnel to form his chain bearer crews, but one of the chain bearers, W. W. Ray, was on all three crews. The three senior Surveys are:

B.B.B. & C. RR. Co., Abstract 81, 640 Acres by virtue of Land Scrip No. 338, Surveyed 23 October 1860

B.B.B. & C. RR. Co., Abstract 83, 640 Acres by virtue of Land Scrip No. 339, Surveyed 25 October 1860

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B.B.B. & C. RR. Co., Abstract 82, 636.51 Acres by virtue of Land  
Scrip No. 340, Surveyed 30 October 1860

These three senior Surveys form part of the North and West lines of the T & P Rwy. Co. Surveys mentioned above.

The M. E. P. & P. RR. Co. 640 acre Survey exists by virtue of Land Scrip No. 125 and abuts the T & P Rwy. Survey No. 16, Blk 4 on the West. It was first surveyed 20 December 1861 by M. J. Knight, District Surveyor, Bowie District, and was surveyed again and the field notes corrected by J. W. Barker, Special Deputy Surveyor, Bowie County, on 29 & 30 October 1902.

There is a part of the South line of the T & P RR. Survey No. 16, Blk. 4 that is not on the Sulphur River. This part of the South line is common with the J. H. Smelser Survey, Scrap File 11156, which was surveyed 14 June 1914 by W. V. Sims, Bowie County Surveyor.

There is a long lake, once known as Hickerson's Lake and now called Blue Lake, that flows as a river at the Sulphur's flood stage, but impounds water when the Sulphur recedes. This lake crosses the M. E. P. & P. RR. Co., the T & P RR. Co. No. 16, Block 4, and all three B. B. B. & C. RR. Co. Surveys. Each of the B. B. B. & C. RR. Co. Survey descriptions makes passing calls for the lake as a natural monument. None of the descriptions for the other surveys do.

The description for the 1861 survey of the M. E. P. & P. RR. Co. begins 11 varas west of the southeast corner of the 636.51 Ac. B. B. B. & C. RR. Co. Survey, but the 1902 corrected field notes for the M. E. P. & P. RR. Co. Survey call to begin AT the southeast corner.

#### FIELD

Our initial field investigations revealed little more information than the fact Blue Lake (Hickerson's Lake) is still there; the land is heavily wooded, but timber has been cut in the past; there is an old levee running through the property, now ineffective at holding out flood waters from the Sulphur; and the area is subject to periodic, sometimes long periods of inundation.

We decided the way to get the most information about existing conditions over the area we needed to cover was through aerial photography. Horizontal control lines were run using a First-Order electronic recording theodolite (a Zeiss Elta 2), and panels were put in selected locations to register the photographs. Two flights were made; one at 1"=2000' and one at 1"=1200'. From the 1"=1200' flight, the entire area was drawn to scale and the data was stored as an Autocad drawing. This narrowed our search area, because there was little room to move the surveys around and still match the calls on Blue Lake, unless the lake had changed. We considered that changes in the lake were possible, even likely in some areas, but the changes would be less dramatic than those of the Sulphur River. The photographs also showed landmarks along the river where we should investigate. The control lines we ran for the photographs were also used to tie in evidence of occupation and markers such as Corps of Engineers monuments and iron pins of unknown origin.

At the Bowie County Courthouse, we searched for any other records that could help us find evidence of the original Survey lines. At Volume 40, Page 146 of the Plat Records, we found a plat dated 8 March 1922 showing the Bowie County

*Bowie SK. File 10, p. 2*

*Counter 14913*

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Levee Improvement District No. 2 levee. This plat shows dimensions from the levee to various survey corners, including some of the ones we were trying to find. We were skeptical of how useful the map would be, but it appeared to have been prepared from surveys on the ground. Though it was prepared for a levee district, and was not General Land Office data, we thought it could be useful in getting oriented, since it was prepared much closer in time to the original surveys.

The Corps of Engineers furnished us some of their survey data. Among their documents was a plat showing Wright Patman Lake Segment I, Tracts I-941 and I-947. This plat shows an iron pipe found in place by them that parol evidence indicates has long been considered as the northwest corner of the Corps' Tract I-946. This corner also appears to be the northeast corner of Tract #19 on the Levee plat, in the north boundary line of the B.B.B & C. RR. Co. Survey, Abstract 83. The Corps had run a line South from the pipe and set a point that would be, if correct, in the line common to the B.B.B & C, Abst. 83 and the Brose Medford Survey. From this point the Corps ran generally West about the width of Levee District Tract #19 and found an iron pin. We found these Corps of Engineers lines.

Using the aerial photographs and some preliminary calculations, we again searched for all the lines of the T & P RR Co. Survey No. 16, Block 4. We found nothing.

For a different approach, we went back to the south end of the Corps' line between Levee Tracts 18 & 19 and ran ninety degrees from it to the West, the called width of Tract 19 (532 varas). This brought us near evidence of occupied lines, but we found no evidence of an original corner.

#### CONCLUSIONS

We believe that all the artificial monuments and marks relating to the subject Brose Medford and T & P RR. Co. Surveys have been destroyed. Blue Lake is the most reliable remaining natural monument called for in any of the descriptions affecting the location of the subject Surveys.

Because the Brose Medford Survey was described as the west 1/2 of a larger survey, we had to determine where the line dividing the east and west halves would be. And because this is a riparian tract, we computed this dividing line based on the original corrected description (from May, 1877) of the T & P RR. Co. Survey No. 16, Blk.4, with the intention of applying, if necessary, a scale factor to account for differences between the original surveyor's and our horizontal measurements. The dividing line between the east and west halves was computed by running a closure from the 1877 description, adjusting the error of closure by the Compass Rule method, and dividing the area in half with a north-south line.

At the office, we linked together in Autocad all the descriptions of the surrounding Surveys and superimposed them on the aerial photo data. When we duplicated in the computer what we had done in the field from the south end of the Corps' line, everything fit; the passing calls on Blue Lake were good; The Sulphur River had extensive areas where the original calls overlaid the River's

present location (of course there were some large differences too); and the levee fit exactly as it is shown on the Levee Improvement District Plat.

The data indicated that no scale factor needed to be applied to the horizontal dimensions from the original surveys.

We returned to the field and established the corners of the Brose Medford Survey as follows:

We went to the south end of the above mentioned Corps of Engineers line, which we had also used as a traverse control point, and went west to a point that is compatible with the passing call for Blue Lake in the description of B.B.B. & C. RR. Co. Sur., Abstract 83, for the northwest corner of the Brose Medford and the southwest corner of said B.B.B. & C. RR. Co. Survey. The point thus established is also compatible with a passing call for Blue Lake made in the description of the east line of the B.B.B. & C. RR. Co. Survey, Abstract 82. This position also agrees with a distance posted on the Levee Improvement District plat for Levee Tract No. 19. From this point we went south and east, setting points at the called distances, for corners common to the Brose Medford and its adjoining Surveys. Then we returned to the south end of the Corps' line and ran East the distance we computed for the dividing line between the east and west halves of the T. & P. RR. Co. Survey No. 16, Block 4, and set a point for the northeast corner of the Brose Medford Survey. From this northeast corner, we went South to an intersection with the north high bank of the Sulphur River, for the southeast corner of the Medford Survey.

The following is included with this report:

Certificate of Facts to Tom Frank Worsham, dated 19 Oct. 1982

A complete set of stereo pairs of photographs at 1" = 1200'

A complete set of stereo pairs of photographs at 1" = 2000'

The complete set of original manuscript drawings at 1" = 1000' made from the stereo photographs.

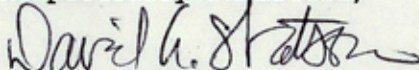
A copy of the Bowie County Levee Improvement District No. 2 plat found at Vol. 40, Pg. 146, Bowie County Plat Records

A 3.5" computer disk containing all of the data from the photogrammetric drawing, the ground surveys, and finished plat

A 1" = 1000' plat showing the results of this survey

A Field Note description of the Brose Medford Survey

Respectfully Submitted,

  
David A. Watson, LSLS  
RPLS No. 1756