General Land Office • Original Field Notes

Book Number

756

The images in this file are photographs of the notes of the original surveys of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The original surveys in Nebraska began in the mid 1850's and were completed in the mid 1880's. The Nebraska office of the Surveyor General was closed June 30, 1886.

(4—679.)

FIELD NOTES

OF THE SURVEY OF

Subdivision and Meander Lines

of

Township 32 North, Range 11 West

Of the 6th Principal Meridian,

In Nebraska

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. , dated May 26th 1890.

Survey commenced July 25th, 1890.

Survey completed July 25th, 1890.

(8780—2,000.) 6—151

Names and Duties of Assistants.

Benjamin A Davidson	Chainman
Charles H Paul	Chainman
Henry A Burrill	Axeman
Seymour B Lyle	Axeman
Jonathan L Peden	Flagman

T32,R11

T33,R11

T31,R11

INDEX DIAGRAM.

Township 32 N., Range 11 W.

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page 2 to 4

Preliminary Oaths of Assistants.

We, ...

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

..... *, Chainman.*

..... *, Chainman.*

..... *, Chainman.*

..... *, Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 . }

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

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.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 . } ..... *, Axeman.*

..... *, Axeman.*

.....

.....

6—151

Subdivision Township 32 N. Range 11 W.

Chains	
	Survey commenced July 25th 1890 with a Burts improved Solar Compass made by Mr. J. Young of Phila Penn Numbered 4432 in perfect adjustment
	There being only a small portion of this Township to be surveyed and only a few chains of Subdivision lines on this side of the River I do not make an observation on Polaris but set my Compass over the corner to secs 35 and 36 on the 8th Standard Parallel in R 11 W. and adjust it to a true Meridian by the Solar Apparatus. I take a backsight to the east and find it agrees with a flag set on the Parallel on S. boundary of sec 36. The va. is 12° 0' E. Corrected by table on pg 55 of the Manual gives Mean declination 12 03 E at 10 a.m.
	I compare my Measuring Chain with the Standard Chain and find it correct
	The line between Ranges 10 and 11 W. on the E. boundary of sec 1 having been continued North across the River to its intersection with the 8th Standard Parallel North. I go to the 1/4 sec cor bet. secs 1 and 2 on the S. side of the river which is a Mound of earth 1 ft high around a fence post with pits N and S 5 ft dist. which is pointed out to me by adjoining settlers in secs 1 and 2 as being the original 1/4 sec. cor. There are No bearing trees. A 7 0 m
	I set my Compass at said corner and adjust it to a true Meridian by the solar apparatus
	The line bet. secs 1 and 2 was run at a va. of 13° 15' E in 1871 I allow 1° 16' diff. of va. for 19 years and
	Thence I run
	North bet. secs 1 and 2
	va 11° 59' E
12.00	Intersect Right Bank of Niobrara River (Counting from 1/4 cor bet sec 1 and 2) I find no Evidence of bearing trees, Meander corner or pits
	I continue measuring across the river
38.43	Intersect the Left Bank of River where I

Subdivision T 32 N. R 11 West Continued

Chains

Set a Slate stone 18X8X4 ins 12 ins. in the ground Marked M.C. on S. side. for Meander Cor. to fractional secs 1 and 2. dug a pit 36 ins square 12 ins deep 8 lks North of stone, and raised a mound of earth 2 ft high 4½ ft base alongside

42.38 / 38.43 / 3.95 — 42.38 Intersect the 8th Standard Parallel N. 19.39 chs East of the Standard Cor. to secs 35 and 36

Set a Slate stone 16X8X4 ins - 11 ins in the ground for Closing Corner to secs 1 and 2. Marked C.C. on S. Edge with 1 notch on E. 6 notches on S. and 5 notches on W. sides, dug pits 18X18X12 ins. E. W. and S. of stone 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land N. of River level valley
Soil dark sandy loam 2nd rate
No timber

Note To 42.38 chs add 40.00 chs, dist from Cor to secs 1.2.11 & 12 To ¼ sec Cor bet secs 1 & 2 would make the whole dist bet secs 1 and 2 — 82.38 chs long

As the line bet. secs 2 and 3 would intersect the parallel in a bend of the River, on a var, and the fractional part to be run. wholly in the River. I do not run the line. There are no more subdivisional lines to be run

Meanders of the Left Bank of the Niobrara River up stream

I commence at the Meander Corner to fractional secs 1 and 6 on the E. boundary of sec 1 which is a sandstone 6 X 12 X 4 above ground Marked M.C. on S. side with a pit 8 lks N. of stone and mound of earth 2 ft high 4½ ft base alongside, this M.C. is 3.1.95 chs. South of Closing Cor. to secs. 1 & 6 on 8th Standd. Parallel. I set my compass over the Center of the

Meanders T 32 N. R 11 West Continued

Chains

Corner and adjust it to a true Meridian by the Solar Apparatus. The true Meridian so found has a Magnetic bearing of N. 12° 09' W. which Corrected by table on page 55 of the Manual gives for Mean declination 12° 03' E. at 8 A.M. Thence I run with Meanders in sec 1

ra 12° 09' E

Along level bank and over smooth prairie

N 65° 05 W	7.65 chs.
N 77° W	10.00 "
N 50° W	9.60
N 88° W	9.20
N 53° W	22.00
N 83° W	11.00
S 87° W	7.65
N 70° W	7.30
S 87° W	5.40 To Meander Corner to fractional secs 1 and 2

Land level
Soil dark sandy loam 2nd rate
No timber

Thence in sec 2.

ra 12° 09' E

along level bank and open prairie

N 72½° W	2.00
N 87½° W	12.00
S 72½° W	7.45
N 70½ W	10.00
N 85½ W	10.00
N. 79° 35' W	4.55 To Meander Cor. to fractional Section 35 on the 8th Standard Parallel N. 25.50 chs. West of the Standard Cor. to secs 35 and 36

Thence from Meander Cor. 48.00 chs West of Cor to secs 35 and 36 T. 33 N R 11 W. on said Parallel in sec 2.

ra 12° 09' E

S 80° W	6.60 chs
N. 39¼ W	1.40 " To Meander Cor. 55.40 chs. West from Cor. to secs 35 and 36 T. 33 N. R 11 W. on said Parallel

Meanders in T 32 N. R 11 W. Continued

Course Land level
Soil Sandy 2nd rate and 3rd rate
Small willow brush & rocks

At 2 P.M. I set my compass over the Meander Corner on 8th Standard Parallel N. 62,50 chs West from the Standard Cor. to secs 35 and 36 T33N. R 11W. and adjust it to a true Meridian by the Solar apparatus which I find has a Magnetic bearing of 11° 57' W. The va is 11° 57' E which Corrected by table on page 56 of Manual gives for Mean declination 12° 03' E
Thence I run with Meanders in sec 3
va 11° 57' E

Along level bank
S. 62½ W. 5 25 chs
S. 50½° W. 6 45 "
S. 83° W. 10 00 "
S 47½° W. 12 00 " Enter brush
S. 89½° W. 9 00 "
N 48½° W. 6 00 "
N 22° W 3 40 "
N 88° W. 9 90 "
N 55° W 11 00 "
N 33 40 W. 3 55 " To Meander Cor. on the 8th Standard Parallel N. 4,10 chs West from the Standard Cor. to secs 34 and 35.

Land level
Soil Sandy 2nd and 3rd rate
Brush and Cottonwood timber 42.85 chs
July 25th 1890

General Description
This Township is in the Niobrara valley
Soil is Medium Sandy 2nd and 3rd rate
There is brush and Cottonwood timber in the South bend of the River in sec 3

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
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.....
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.....
.....
..... Meridian, in ....., showing the respective capacities in which they acted:
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Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
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.....
..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

6—151

T33 R11
T33 R11

Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the ~~U. S. Surveyor~~ General ~~for~~ Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor~~ Commissioner of the General ~~for~~ Land office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of fractional Township 32 North Range 11 West of the 6th Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the ~~U. S. Surveyor~~ Commissioner of the General ~~for~~ Land Office and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 8th day of April, 1890.

C. E. Forbes
Clerk Dist Court
Fall
[illegible]

Approval.

Office of the ~~U. S. Surveyor General,~~ Commissioner Genl Land Office
Washington D.C. June 30, 1891.

The foregoing field notes of the survey of fractional T. 32 N. R. 11 W of the 6th Principal Meridian in Nebraska executed by U. S. Surveyors Nicholas J. Paul and Robert Harvey under their his Contract No. —, dated May 26th, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

F. H. Carter
Commissioner Genl Land Office
Ex-officio Surveyor General
~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.~~

6—151

U. S. Surveyor ~~General.~~

T. 33, R. 11

T. 34, R. 11

(4—679.)

FIELD NOTES

OF THE SURVEY OF

Subdivisional lines in Fractional Township 33 North, Range 11 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. Deputy Surveyor,

Under his Contract No. , dated May 26th 1890.

Survey commenced July 28th, 1890.

Survey completed August 3rd, 1890.

(8780—2,000.) 6—151

Names and Duties of Assistants.

Benjamin H Davidson Chainman

Charles H Paul " Chainman

Henry A Burrell Axeman

Sumner C Lyle Axeman

Jonathan L Peden Flagman

INDEX DIAGRAM.

Township 33 N , Range 11 W

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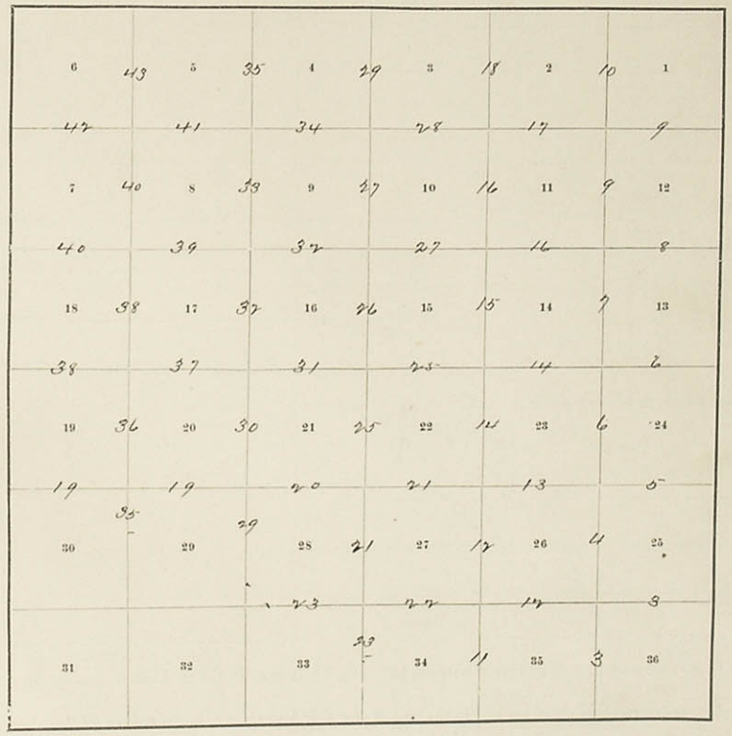
19		19		20		21		13		5
30	35	29	29	28	21	27	12	26	4	25
				23		22		12		3
31		32		33	23	34	11	35	3	36



Meanders Page 45 to 47

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., *Axeman.*

....., *Axeman.*

.....

.....

6—151

Subdivision T. 33 N. R. 11 W. Continued

Survey commenced July 28th 1890 with a Burts improved Solar compass made by Wm. J Young of Phila. Penn. numbered 4432.

Preliminary to commencing the subdivision of Township I go to the Standard corner to Township 33 N. Ranges 10 & 11 W. which is a Sandstone 7 x 10 x 5 ins above ground firmly set and marked S. C. on S. and 6 notches on E. & W. edges. and pits 24 x 18 x 12 ins N. E. & W of stone 6 ft dist with a raised mound of earth 1½ ft high 4 ft base. alongside.

Latitude 42° 47' N; Longitude 98° 33' W

At 9. 30 A. M. I set my instrument over the center of the above described corner and adjust it to a true Meridian by the solar apparatus which I find agress with the meridian line established on the night of July, 23rd 1890. The method of obtaining the same I take from my notes of the observation of that evening; viz: "Astronomical time of observation by watch."

1890 July 23rd.	9h	22m
Watch fast (Sub)		02
Correct local mean time of obs.	9	20
Tabular time U. C. of Polaris 1890 July 15.	17	41.5
Diff is hour angle " " at obs.	16	05.9
Subtract from	23	56.1
Argumet for table II	7	50.2
Azimuth of Polaris for Lat. 43°	1°	30' E.
North end of needle	10°	33' E
The sum is the Va.	12°	03' E

The magnetic bearing of the star is N 12° 03' W"

At this hour (9. 30 A. M. July 28) the Va. is 12° 06' E. which corrected by table on page 55 of the manuel gives for local mean declination 12° 03' E. July 28, 1890.

Subdivision of T. 33 N. R. 11 W., Continued

Chains From the Standard Township Cor. I run North on the E. boundary of Sec. 36.
Va. 12° 06' E.

And at 40.01 chains find ¼ Sec Cor 5 lks E. and at 79.98 chains find Cor to Secs 25 & 36. 10 lks E. of my line, To retrace this line I must adjust my compass to a bearing of S 0° 4' W.

I now return to the S.E. Cor. of the Township and again take the bearing of my meridian line established July 23rd and verified today, which I now find to be N. 12° 03' W. the needle having returned to its normal place (10.30 A.M.)

I thence run W. along the S. boundary of Sec 36.
Va. 12° 03' E.

At 40.00 chains find ¼ Sec Cor. and at 80.01 chains find the corner to Secs 35 & 36 on line.

From the above named bearings I deduce the following true bearings at which the subdivisional lines of the eastern tier of Sec's corrected by table 10 for meridional sec lines will be run, as required by the printed manuel of instructions, to wit.

N. and S. lines N 0° - 4' E.
E. randomes - East

My chain having been compared with the Standard chain this morning - the chaining practically agrees with that of the original survey.

I commence at the Cor of Secs 35 & 36 on the S. boundary which is a slate stone firmly set upper edge 18 ins. Set N. & S. 2½ ins thick and 5 ins above ground marked - 1 notch on E. & 5 notches on W. and S.S.E. and S. edges, with pits 18 x 18 ins. filled with earth from torn down mound by cattle. I clean out the pits & rebuild the mound 1½ ft high. 4 ft base. alongside.

I adjust my instrument to a true meridian by the Solar apparatus, its magnetic bearing at this time (2 P.M.) N. 11° 58' W. which

Subdivision of T. 33 N. R. 11 W. Continued.

chains corrected by table on page 56 of printed manuel gives for mean declination 12° 03' E.

Thence I run.
N 0° 03' E. bet Secs 35 & 36.
Va. 11° 58' E.

Over valley land

3.80 Leave valley and ascend 15 ft. to ascending second bench bears N. 85° W. and S. 85° E

9.50 Shallow drain 5 ft deep course S.E.

40.00 Set a Sandstone 15 x 8 x 5 ins 10 ins. in the ground for ¼ Sec Cor. Marked ¼ on W. face, dug pits 18 x 18 x 12 ins. N. & S. of Stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base alongside.

57.05 Drain course S.E.

60.00 Top of bluffs, Wagon road on old Indian trail brs N.W. & S.E. here enter table land, over rolling surface (gently)

75.00 Descend.

80.00 Set a Sandstone 18 x 12 x 4 ins 12 ins in the ground for Cor to Secs. 25. 26, 35 & 36. marked 1 notch on E. and S. sides, dug pits 18 x 18 x 12 ins in each Sec. 5½ ft dist raised mound of earth 2 ft high 4½ ft base, alongside

Land: valley level - Second bench S. slope table land gently rolling.
Soil - Clay. 2d Rate No timber

East on a random line bet Secs 25 & 36.
Va. 11° 58' E.

40.00 Set temporary ¼ Sec Cor

80.06 Intersect E. boundary of Township 19 lks N. of the Cor to Secs 25, 30. 31 & 36. which is a Sandstone 7 x 10 x 7 above ground firmly set Mk'd 1 notch on S. and 5 notches on N. sides. with pits 18 x 18 x 12 ins in each Sec 5½ ft dist. raised mound of earth 2 ft high 4½ ft base, alongside.

Thence I run
N. 89° 52' W. on a true line bet Secs 25 & 36
Va. Same.

Subdivision of T. 33 N. R. 11 W. Continued.

Chains | Over rolling table land, Ascend.
8.00 | Top of hill and descend over rolling ground.
24.05 | Ravine course N.E. 6 ft deep.
35.30 | Ravine course N. 30 ft deep, below top of table land
40.03 | Set a Willow post 3 ft long 3 ins square with charred stake 12 ins. in the ground for ¼ Sec Cor. Mk'd ¼ S on N. face. dug pits 18 x 18 x 12 ins E. & N. 5½ ft dist raised mound of earth 1½ ft high 3½ ft base. around post.
47.35 | Drain course N.E. 50 ft deep below table.
64.75 | Ravine course N.E. 40 ft below table.
68.05 | Ravine course N.E. 40 ft below table.
79.75 | Ravine course N.W. 45 ft below table, ascend 6 ft to.
80.06 | The Cor to Secs 25. 26. 35 & 36.
Land. Rolling & Broken too rough for farming
Soil. Clay 3rd Rate, Grass. Buffalo and Blue joint. No timber.

At 4.30 P. M. diurnal change has increased the Va. 3' N 0° 3' E bet Secs 25 & 26.
Va. 12° 01' E.

Descend
1.00 | Ravine course N.W. 20 ft below table. 8 ft below Cor.
6.00 | Ravine course N.E. (same) 30 ft below table.
13.00 | Ravine course N.E. 45 ft below table
16.00 | Ravine course S.E. 40 ft below table, ascend
40.00 | Set a Red Cedar post 3 ft long 4 ins square with charred stake 12 ins in the ground for ¼ Sec Cor. Mk'd ¼ on S. & W. face dug pits 18 x 18 x 12 ins N. & S. of post 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base. around post
80.00 | Set a Red Cedar post 4 ft long 4 ins sqr. with charred stake 12 ins in the ground for Cor to Secs 23. 24. 25 & 26. Mk'd.
T. 33 N. S 24 on N.E.
R. 11 W. S 25 on S.E.
S 26 on S.W.
S 23 on N.W. with 2 notches on S. and 1 on E edges dug pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft

Subdivision of T. 33. N. R. 11 W. Continued

chains | base around post.
Note. Cor stands on E. slope of hill
Land. S. 30 chains broken by ravines N. 50 chs table smooth surface.
Soil. S. 30 chains 3rd rate farm land
N 50 " 1st " Clay land
In the ravines there is very tall slough grass
No timber.

East on a random line bet Secs 24 & 25.
Va. 12° 01' E.

40.00 | Set temporary ¼ Sec Cor.
80.16 | Intersect the E. boundary of Township 2 lks S. of the cor to Secs 23. 24. 19 & 30. which is a sandstone firmly set 6 x 10 x 5 above ground Mk'd 2 notches on S. and 2 on N. sides. with pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base, alongside
Thence S run.
S 89° 39' W. on a true line bet Secs 24 & 25.
Done Va.

Over rolling ground
1.45 | Ravine course N.E.
23.63 | Ravine course S. 30 ft below top of table.
40.08 | Set a Red Cedar post 3 ft long 4 ins sqr. with charred stake 12 ins. in the ground for ¼ Sec Cor. Mk'd ¼ S. on N face dug pits 18 x 18 x 12 ins. E. & W. of post 5½ ft dist raised mound of earth 1½ ft high 3½ ft base. around post.
41.25 | Ravine course N. 30 ft deep below top of hill
73.45 | Ravine course N. 30 ft deep below top of hill.
78.90 | Ravine course N.W. 8 ft lower than Cor. Ascend
80.16 | The Cor to Secs 23 24. 25 & 26.
Land - rolling & Broken
Soil Clay 3rd Rate farm land, good only for graging

At 6 P. M. diurnal change has increased the Va 2'
I change the bearing of the line 2' E.

Subdivision of T. 33 N. R. 11 W. continued

Chains	
	N 0° 5' E. bet Secs 23 & 24. Va 12° 03' E.
	Descend
6.00	Same ravine course N.W. 10 ft lower than Cor.
26.10	Ravine course N.W.
40.00	Set a Red Cedar post 3 ft long 4 ins sqr. with charred stake 12 ins. in the ground for ¼ Sec Cor. Mk'd ¼ S. on W. face dug pits 18 x 18 x 12 ins N. & S. of post 5½ ft dist raised mound of earth 1½ ft high 3½ ft base around post.
47.50	Ravine course N.W.
54.00	Ravine 1 ch. wide 8 ft deep course N.E. here leave hill and enter rolling ground, edge of valley brs E. & W.
80.00	Set a Red Cedar post 4 ft long 4 ins sqr. with charred stake for Cor to Secs 13. 14. 23 & 24. Mk'd 3 notches on S. and 1 notch on E. sides dug pits 18 x 18 x 12 ins. in each Sec 5½ ft dist. raised mound of earth 2 ft high 4½ ft base around post.

Note. This Cor stands near foot of low bank of slough 5 ft high at edge of tall slough grass. Land rolling on 50 chs. N 30 chains smoother land.

Soil is clay S. 50 chs 3rd Rate farm land
N. 30 " 2nd " " "

Good grass Buffalo & Blue-joint
No timber

East on a random line bet Secs 13 & 24.
Va. 12° 03' E.

40.00	Set temporary ¼ Sec Cor.
80.04	Intersect E. boundary of Tp. 2 lks N. of the Cor to Secs 13. 18. 19 & 24. which is a sandstone firmly set 6 x 13 x 5 ins above ground Mk'd 3 notches on N. and S edges with pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base

Thence I run.

N. 89° 59' W. on a true line bet Secs 13 & 24
Va Same

Subdivision of T. 33 N. R. 11 W. continued

Chains	
	Over rolling ground or foot hills.
30.00	Leave foot hill and descend gentle slope into valley brs N. & S.
40.02	Set a Red Cedar post 3 ft long 3 ins sqr. with charred stake 12 ins in the ground for ¼ Sec Cor. Mk'd ¼ S. dug pits 18 x 18 x 12 ins E. & W. of post 5½ ft dist raised mound of earth 1½ ft high 3½ ft base around post
42.00	Shallow ravine 5 ft deep sloping bank N.W.
77.00	Ravine 5 ft deep hole of Water N. of line co. N.
80.04	Cor to Secs 13. 14. 23 & 24.

Land E 30 chs rolling good 3rd rate
W. 50 chs rolling low foot hills good soil 1st rate

Grass buffalo & blue-joint
No timber July 28. 1890

At 6 A.M. July 29th 1890. from a flag station on bank S of Cor. to Sec 13. 14. 23 & 24 I take a back-sight to a flag on the line bet Secs 23 & 24. Its magnetic bearing is S. 12° 04' E. which corrected by table on page 55 of manual gives for mean Solar declination 12° E. from the above described cor I run thence.

N 0° 5' E. bet Secs 13 & 14.
Va 12° 14' E.

.50	Ravine or slough 5 ft below Cor 1 ch wide tall grass growing therein co. N.E.
1.50	Top of bank. Descending valley slope
39.60	Center of Ponca creek bank 6 ft high 60 lks bet top of bank water 15 lks wide 6 ins deep run E.
39.95	Low bank on N. side
40.00	Set a sand-stone 16 x 10 x 4 ins 11 ins in the ground for ¼ Sec Cor Mk'd ¼ on W. face dug a pit 24 x 24 x 12 ins 8 lks N. of stone raised mound of earth 1½ ft high 3½ ft base alongside. S pit is impracticable. falling in creek from which Cor

chains

A. Box Elder 10 ins. diam. brs S. 12° W. 60 lks dist. on S. bank of creek Mks ¼ S B.T. no other trees in limits.

57.00 Leave valley & ascend bluff brs E. & W.

80.00 Top of sand-hill at East end.

Set sandstone 16 x 8 x 4 ins 11 ins in the ground for Cor to Secs 11, 12, 13 & 14 Mks 4 notches on S. & 1 on E edges dug pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base, along.

Land. Valley, rolling hills So. slope

Soil. Valley is clay land 1st Rate.
Hill sandy 3rd Rate

Timber - Along creek is Willow, Box Elder, Ash, Cottonwood and scattering Oak
Underbrush Willow and Plum

East on a random line bet Secs 12 & 13.
Va. 12° 04' E.

40.00 Set temporary ¼ Sec Cor.

79.94 Intersect the E. boundary of the Tp. 13 lks N. of the Cor to Secs 7, 12, 13 & 18 which is a sandstone firmly set 6 x 11 x 3 ins above ground marked 4 notches on S and 1 on E. edges with pits 18 x 18 x 12 ins in each Sec 5½ ft dist. and raised mound of earth 2 ft high 4½ ft base, alongside

Thence I run
N 89° 34' W. on a true line bet Secs 12 and 13
With Same Va.

Over rolling sandy ground.

29.75 Enter creek valley brs N. & S.

30.35 Creek 2 lks wide 6 ins deep runs S.

35.00 Leave valley and ascend bluff (30 ft high) through small oak brush bears N. and S.

39.97 Set a hard sand-stone 16 x 8 x 4 ins 11 ins. in the ground for ¼ Sec Cor. Marked ¼ on N. face dug pits 18 x 18 x 12 ins E. and W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base, alongside. on E. slope of hill among oak bushes, ascend

chains

42.00 Leave bushes thence over open rolling prairie

79.94 The Cor to Secs 11, 12 13 & 14.

Land rolling.
E. 15 chs sandy and clay loam 1st rate.
Creek bottom black loam 1st rate.
balance of land is sandy 3rd "

Timber there are scattering oak trees along both bank of creek.

At 7.30 A M. diurnal changes has increased the Va 2'
N. 0° 5' E. bet Secs 11 and 12
Va 12° 06' E.

Over rolling sandy ground.

40.00 Set Sandstone 13 x 9 x 4½ ins 8 ins. in the ground for ¼ Sec Cor Mks 4 on N face. dug pits 18 x 18 x 12 ins N. and S. of Stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside. Over level clay table and

80.00 Set Sand-stone 18 x 10 x 4 ins 12 ins. in the ground for Cor to Sec 1, 2, 11 & 12 Marked 5 notches on S. and 1 on E. edges dug pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base. alongside. Land ½ rolling N½ level
Soil S½ sandy 3rd Rate. N½ Clay 1st Rate

No timber.

East on a random line bet Secs 1 & 12
Va 12° 04' E.

40.00 Set temporary ¼ Sec Cor.

79.90 Intersect the E. boundary of the Tp. 5 lks N of Cor to Secs 1, 6, 7 & 12 which is a sandstone firmly set 5 x 10 x 5 ins. above ground Marked 5 notches on S. and 1 on N. edges. with pits 18 x 18 x 12 ins in each Sec 5½ ft dist. raised mound of earth 2 ft high 4½ ft base alongside

Thence I run
N. 89° 35' W. on a true line bet Secs 1 and 12
Va Same

Over rolling prairie ... enter corn field
5.00 Corn field Mag 5
30.40 Ravine 10 ft deep course S.E.

Subdivisions of T. 33 N. R. 11 W. Continued

chains

39.95 Set Sandstone 12 x 12 x 4 ins 8 ins in the ground dug pits 18 x 18 x 12 ins E. & W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base, alongside

42.55 Ravine course N. W.

49.60 Enter valley brs N. & S.

50.05 Creek 3 lks wide runs S.

56.40 Same creek 3 lks wide runs N. E.

57.40 Same creek 3 lks " " S. E.

60.00 Leave valley and ascend hill N. & S.

64.50 Ravine course S. E.

71.00 Ravine course S. E. 20 ft deep from top of hill

72.00 Top of hill enter smooth prairie N. & S.

79.90 The Cor to Secs 1. 2. 11. & 12

Land rolling. E. of creek clay 2nd Rate

Creek valley narrow broken by winding of the stream. Soil black loam 2d rate

Table on W. side is smooth clay land

there is some timber along creek in small clumps Box Elder, Ash & Oak.

At 9. A. M. Va has decreased by diurnal change 2'

I change the bearing of the line to N. 0° 3' E. on a random line bet Secs 1 and 2

Va. 12° 2' E.

40.00 Set temporary ¼ Sec Cor.

80.05 Intersect the N. boundary of the Tp. 18 lks E. of the Cor to Secs 1. 2 35 & 36 which is a sandstone firmly set and properly marked and witnessed as heretofore described in the notes of Survey exterior boundaries of Tp 33 N. R. 11 W.

Thence I run

S. 0° 5' E. on a true line bet Secs 1 and 2

Va. Same

Over rolling ground

.55 Short gulch " E.

11.65 Ravine course S. E. 20 ft deep from top of table

16.05 Ravine course E. 20 ft lower than "

40.05 Set Sandstone 16 x 10 x 4 ins 11 ins in the ground for ¼ Sec Cor. Mks ¼ on W. face dug pits 18 x 18 x 12 ins N. & S. of stone 5½ ft dist raised mound of earth

Subdivision T. 33 N. R. 11 W. Continued

chains

1½ ft high 3½ ft base. alongside

66.80 Top of round top gravel knoll 20 ft higher than Sec Cor.

Descend of gently sloping surface.

80.05 The corner to Secs 1. 2. 11 & 12.

Land S. 65 chs gently rolling.

Clay land and 1st rate

N. 25 chs broken by ravines 2nd Rate.

July 29th 1890.

At 12 M. at the corner to Secs 34 and 35 on the S. boundary of the Tp. which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of the 8th Standard Parallel N. in range 11 W. I take observation for latitude and find it to be 42° 47' N. I set my instrument over the center of the corner stone and adjust it to a true meridian by the solar apparatus. I find the magnetic bearing of the line so determined to be N. 11° 57' W. which corrected by table on page 56 of the manual gives for mean local declination 12° 03' E. at 2 P. M.

July 29th 1890.

Thence I run

N. 0° 02' E. bet Sec 34 and 35.

Va. 11° 57' E.

Over level valley

3.70 Leave valley and ascend 2d bottom 8 ft higher brs. E. & W. ascend hills.

40.00 Set an Elm post 3 ft long 3 ins sqr with charred stake 12 ins. in the ground for ¼ Sec Cor. Mks ¼ S. on N. face dug pits 18 x 18 x 12 ins. N. & S. of post 5½ ft dist raised mound of earth 1½ ft high 3½ ft base, alongside

80.00 Set a hard sandstone 18 x 8 x 4 ins 12 ins in the ground for Cor to Secs 26. 27. 34 & 35 Mks 1 notch on S. & 2 on E. face dug pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound

Subdivision T. 33 N. R. 11 W. Continued

chains of earth 2 ft high 4½ ft base alongside
Land Valley level. Balance gradual S. slope
Soil clay 2d Rate
No timber

East on a random line bet Secs. 26 and 35
Va. 11° 57' E.

40.00 Set temporary ¼ Sec Cor.
80.10 Intersect N. & S. line 5 lks S. of the Cor to Secs 25. 26. 35 & 36. from which I run
S. 89° 38' W. on a true line bet Secs 26 and 35.
With Same Va
Over rolling table land, ascend hill.
4.00 Enter tableland
40.05 Set a willow post 4 ft long 3 in square with charred stake 12 ins. in the ground for ¼ Sec Cor. Mkd ¼ S on N. face dug pits 18 x 18 x 12 in E. & W of post 5½ ft dist raised mound of earth 1½ ft high 3½ ft base. around post.
35.40 Wagon road on Indian trail brs. N.W. & S.E.
77.00 Leave table and descend.
80.10 The cor to Secs 26. 27. 34 & 35.
Land rolling and table land
Soil E. ½ 2nd Rate W. ½ 1st rate. No timber

N. 0° 2' E. bet Secs 26 and 27
Va. 11° 57' E.

Ascend the W slope of bluff
6.50 Top of bluff enter N. slope toward Ponca creek brs N.W. & S.E.
8.35 Wagon road brs N.W. & S.E on old Indian trail
16.85 Drain 2 ft deep course N.E.
20.00 Ravine course S.E. 20 ft deep below table land
40.00 Set hard sandstone 15 x 10 x 4 ins 10 ins. in the ground for ¼ Sec Cor. Marked ¼ on W. face dug pits 18 x 18 x 12 in N. & S. of Stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base around post. Along ridge
65.00 Descend along E. slope of ridge
80.00 Set a sandstone 18 x 10 x 4 in 12 ins in the ground for Cor to Secs 22. 23. 26 & 27

Subdivision T. 33. N. R. 11 W. Continued

chains Marked 2 notches on S. and 2 notches on E. edges dug pits 18 x 18 x 12 in in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base alongside
Note this cor stands about half way down the slope of hill.
Land rolling
Clay soil 3rd Rate farm land.
No timber.

At 4 P.M. diurnal change has increased
Va 3'
East on a random line bet Secs 23 and 26
Va. 12° 00' E.

40.00 Set temporary ¼ Sec Cor.
80.12 Intersect the N. and S line 2 lks N. of the Cor to Secs 23. 24. 25 and 26.
Thence I run
N. 89° 59' W. on a true line bet Secs 23 and 26
With Same Va.

Ascend
3.00 Top of hill descend
8.52 Spring on line formes a small deep pocket in the clay bank runs N. it is about 15 ft below the top of table. descend.
12.60 Ravine 60 ft below " " course N.E.
Ascend to narrow table.
40.06 Set Sandstone 16 x 10 x 4 ins. 11 ins. in the ground for ¼ Sec Cor Mkd ¼ on N. face dug pits 18 x 18 x 12 ins E. & W. 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside descend.
41.00 Shallow drain course N.W.
56.80 Ravine course N.W. 50 ft lower than table.
76.00 Ravine 1 ch. wide course N. 75 ft lower than table land ascend to.
80.12 The Cor to Secs 22 23 26 & 27. Land rolling E. 20 chs broken 3rd Rate. W 40 chs " broken by ravines descending to the main ravine at 76 ch 3rd rate farm land 20 chs E. of ¼ Sec Cor, table land. No timber

Subdivision T. 33 N. R. 11 W. Continued

Chains	
	N. 0° 2' E. bet Secs 22 and 23
	Va. 12° E.
	Descend
6.50	Ravine course N.W. 75 ft below table land
15.50	Ravine course N.W. 75 lower than table land
40.00	Set a hard sandstone 17 x 10 x 4 in 11 ins in the ground for ¼ Sec Cor. Marked ¼ on W face dug pits 18 x 18 x 12 in N. and S. of stone 5½ ft dist raised a mound of earth 1½ ft high 3½ ft base alongside
60.00	Ravine course N.W.
79.40	West edge of bank of ravine 8 ft high enter valley brs. N.W. & S.E. . Descend.
80.00	Set Sandstone 18 x 12 x 5 ins 12 ins in the ground for Cor to Secs 14. 15. 22 and 23. Marked 3 notches on S. and 2 notches on E. edge dug pits 18 x 18 x 12 in in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base alongside in edge of bottom of ravine
	Land rolling and broken
	Soil. light brown or gray clay
	3rd rate farm land suitable only for grazing
	No timber.
	At 6.30 P. M. diurnal change has increased Va 2'
	East on a random line bet Sec 14 and 23
	Va. 12° 02' E.
40.00	Set temporary ¼ Sec Cor.
80.10	Intersect N. & S. line 5 lks north of Cor to Secs 13. 14. 23 & 24.
	Thence I run
	N. 89° 58' W. on a true line bet Secs 14 and 23
	With same Va.
	Over descending rolling ground
40	Center of ravine or slough co N.E.
10.00	Leave valley and enter hills N.W. & S.E.
40.05	Set hard sandstone 16 x 10 x 5 in 11 in in the ground for ¼ Sec Cor Mk'd ¼ on W face dug pits 18 x 18 x 12 in

Subdivision T. 33 N. R. 11 W. Continued.

Chains	
	E. and W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside
57.60	Ravine course N.W.
79.90	Center of ravine 8 ft deep course N.W.
80.10	The corner to Secs 15. 14 22 and 23.
	Rolling surface Clay soil 2d rate
	No timber July. 29th 1890.
	At 6 A. M. July 30th the line bet Secs 22 & 23 has a magnetic bearing of S. 12° 03' E. the Va. is 12° 07' E. which corrected by table on page 55 of Manuel gives for mean declination 12° 03' E.
	N. 0° 2' E. bet Secs 14 and 15
	Va. 12° 07' E.
	Over rolling descending.
.20	Center of ravine course N.W.
13.00	A dry creek course E. 6 ft deep
20.00	Drain course E. 5 ft deep
26.05	Same dry creek co. W. bottom flat 1 ch wide 5 ft deep.
40.00	Set a hard sandstone 16 x 10 x 4 in 11 ins in the ground for ¼ Sec Cor. Mk'd ¼ on W face dug pits 18 x 18 x 12 in & N. & S. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base, alongside, from which A. cottonwood tree 24 ins dia. brs S. 83° 25' W. 1.90 chs dist marked ¼ S. B.T.
55.00	Center of Ponca creek water 6 in deep 15 lks wide runs E.
79.50	Leave valley and begin ascent of bluffs
80.00	Set Sandstone 18 x 14 x 4 in 12 ins in the ground for cor to Secs 10. 11. 14 & 15. Mk'd 4 notches on S. and 2 on E. edges dug pits 18 x 18 x 12 ins in each sec. 5½ ft dist. raised mound of earth 2 ft high 4½ ft base, alongside
	Land gently rolling Soil clay 1st & 2nd rate
	Timber consists of Willow, Box Elder, Ash, Cottonwood and Oak. along the creek. there is a clump of Elm trees in the bend of creek (Dry) E. of line 13 chains.

Subdivision T. 33 N. R. 11 W. Continued

chains East on a random line bet Secs 11 and 14
Va 12° 07' E.

40.00 Set temporary ¼ Sec Cor
80.14 Intersect the N. of line 10 lks N. of Cor to Secs 12 and 11, 13 & 14
Thence I run
N. 89° 56' W on a true line bet Secs 11 and 14
With same Va.

2.00 Leave sand hills and descend
19.75 Brook in timbered gulch 1 lk wide runs S.
Oak timber along creek
35.75 Brook 2 lks wide runs S oak along creek
40.07 On E. slope of hill set a hard sand stone 14 x 12 x 4 in 9 ins. in the ground for ¼ Sec Cor Marked ¼ on N. face dug pits 18 x 18 x 12 in E. & W. of stone 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base.
47.75 Gulch on S. Slope of bluffs course S.
56.75 Gulch on S. " " " course S.E.
72.75 Drain course S.
80.14 The Cor to Secs 10 11. 14 & 15.
Land rolling.
Soil E. ½ Sandy 3rd Rate. W ½ Clay 2nd
Timber there is oak along the two brooks Also Willow Cottonwood, Box elder, and Ash along Ponca creek with scattering Oak along valley.

North 0 2' E. bet Secs 10 & 11
Va. 12° 07' E.
Ascent along E. slope W of a ravine
22.50 Ravine 10 ft deep course S.E.
40.00 Set a hard sandstone 12 x 10 x 5 ins. 8 ins in the ground for ¼ Sec Cor. Mkd ¼ on N face dug pits 18 x 18 x 12 in N. & S. of Stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside.
62.25 Wagon road bears N.E. and S.W.
79.60 Drain 5 ft deep course W.
80.00 Set a hard sandstone 14 x 10 x 4 in 9 ins. in the ground for Cor to secs 2. 3. 10 & 11. Marked

Subdivision T. 33 N. R. 11 W. Continued

chains 5 notches on the S and 2 notches on the E. edges dug pits 18 x 18 x 12 in. in each Sec 5½ ft dist and raised mound of earth 2 ft high 4½ ft base alongside
Land rolling. S ½ on E. slope N ½ on W. Slope. Soil Sandy on S ½ 3rd rate
N ½ clay 1st Rate
No timber along line. a few oak trees in the ravine in S. W. ¼ of Sec 10 and E. of Sec line

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At 8 A. M. diurnal change has increased the variation 2'
East on a random line bet Secs 2 and 11
Va 12° 09' E.

40.00 Set temporary ¼ Sec Cor
80.10 Intersect the N. and S. line at cor to secs 1. 2. 11 and 12
I run thence
West on a true line bet Secs 2 and 11
With Same Va.
Over undulating ground
38.10 Ravine 10 ft deep course S. head a few rods north of line
40.05 Set a hard sand-stone 16 x 12 x 3 in 11 ins. in the ground for ¼ sec cor marked ¼ on N face, dug pits 18 x 18 x 12 ins E. and W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base, alongside.
71.25 Wagon road bears N.E. and S.W.
80.10 Cor to Secs 2. 3. 10 and 11
Land E. 60 chains undulating nearly level
W. 20 chains gently rolling
Soil clay 1st rate
Timber, No timber along line down the ravine at 38 chains there is some oak timber also a fine spring in same about ½ mi down ravine

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At 9 30 A. M. diurnal change has deminished the Va. 2'
N 0° 02' E. on a random line bet Secs 2 and 3

Subdivision T. 33 N. R. 11 W. continued

Va. 12° 07' E.

Chains	
40.00	Set temporary ¼ Sec cor.
Cor 80.08	Intersect the N. boundary of the township 5 lks E of the cor to secs 2. 3. 34 and 35 which is a stone 6 x 10 x 4 ins above ground marked 2 notches on E 4 notches on W. and 6 notches on S. faces with pits 18 x 18 x 12 ins in each sec 5 ft dist raised mound of earth 2 ft high 4½ ft base alongside. Thence I run.
	South on a true line bet Secs 2 and 3. With same Va.
	Over gently rolling surface.
5.95	Enter valley bears N.W. & S.E.
29.00	Leave valley bears N.E. & S.W.
40.08	Set hard sand-stone 16 x 12 x 4 ins. 11 ins in the ground for ¼ Sec cor marked ¼ on W face. dug pits 18 x 18 x 12 ins. N. & S of stone 5 ft dist. raised mound of earth 1½ ft high 3 ft base alongside
55.60	Ravine course S.W. 8 ft deep.
66.70	Ravine course S.W. 6 ft. deep
80.08	Cor to Secs 2. 3. 10 and 11.
	Land gently rolling, Soil clay 2nd rate. No timber July 30th 1890.

Provisional Base Line

The township being fractional on the south boundary in sec 34. and on the W in sec 30. I now proceed according to instructions to establish a Provisional Base Line.

At 2 P.M. July 30th 1890. I go to the cor to secs 22 23. 26 and 27 and adjust my instrument to a true meridian by the Solar apparatus the magnetic bearing of the line is now N 11° 39' W which corrected by table on page 56 of manual gives for mean variation 12° 03' E. from the above described cor. I run W. on a random line the Va of my compass being 11° 59' E. I set temporary ¼ mi and mile cors. at every 40 and 80 chs & at 3 mi 79 chs & 41 lks I intersect the W bdy of the

Subdivision T. 33 N. R. 11 W. Continued

chains	
	Township 48 lks N. of the cor to secs 19. 24. 25 & 30. the correction of the true line will therefore be 12 lks S per mile and its true course will be N. 89° 35' E. July 30th 1890.
	From the cor to secs 19. 24. 25 and 30. T. 33 N. Rs. 11 & 12 W. which is a sandstone firmly set 6 x 14 x 4 ins above ground marked 2 notches on S and 4 notches on N. & 6 notches on E. faces with pits 18 x 18 x 12 ins in each sec 5 ft dist with a raised mound of earth 2 ft high 4½ ft base alongside.
	Note The magnetic bearing of the line bet secs 19 & 24 which I observe by a backsight on top of bluff, is N. 12° 10' W. (at 5:30 A.M. July 31st) which corrected by table on pag 55 of manual gives the Mean Local Declination 12° 08' E. I run.
	N. 89° 35' E. on a true line bet Secs 19 and 30. Va. 12° 10' E.
	Over rolling clay foot hills.
13.40	Ravine course S.W.
17.10	Ravine course S.
38.95	Ravine course S.
39.40	Set sandstone 15 x 11 x 3½ ins 10 ins. in the ground for ¼ Sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E & W. of stone 5 ft dist. raised mound of earth 1½ ft high 3½ ft base alongside.
53.25	Ravine course S.
76.20	Top of bluff, divide bet Niobrara river and Ponca creek slopes bear N.W. and S.E.
79.40	Set sandstone 24 x 16 x 3 ins 18 ins in the ground for cor to secs 19. 20. 29 and 30. marked 2 notch on S and 5 on E. dug pits 18 x 18 x 12 ins in each Sec 5 ft dist. raised mound of earth 2 ft high 4½ ft base alongside.
	Land rolling S. slope, Soil clay 2nd rate No timber

At 6 A.M. local attraction has decreased Va 2° N 89° 35' E on a true line bet secs 21 and 29. Va. 12° 08' E.

Over rolling surface

Subdivision T. 33 N. R. 11 W. Continued

chains

7.50 Short gulch course S.E.
13.90 Divide road bears N.W. & S.E.
18.00 Ravine course N.
27.10 Ravine course N.W.
34.50 Ravine course N.W.
40.00 Set a hard sand-stone 16 x 10 x 4 ins. 11 ins in the ground for ¼ sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins E. and W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside.
49.40 Ravine course N.E.
57.00 Ravine course N.W. 10 ft deep
80.00 Set a sandstone 18 x 16 x 3 ins 12 ins in the ground for Cor to Secs 20. 21. 29 and 28. marked 2 notches on S and 4 notches on E. faces dug pits 18 x 18 x 12 ins in each Sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base. alongside
Land rolling & broken Clay soil 3rd rate farm land good for grazing
No timber

At 7 A.M. diurnal change has increased the Va 3'
N. 89° 35' E. on a true line bet Secs 21 & 28
Va. 12° 11' E.

Over rolling broken prairie
.80 Wagon road bears N.E. and S.W.
7.35 Ravine course S.E.
13.30 Ravine course S.E.
21.10 Ravine 20 ft deep course S.E.
40.00 Set sandstone 16 x 8 x 4 ins 11 ins in the ground for ¼ Sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E. and W. of stone 5½ ft dist raised md of earth 1½ ft high 3½ ft base alongside.
44.80 Ravine course N.E.
59.20 Ravine course N.E.
74.50 Ravine course N.W. 25 ft lower than top of hill ascend
80.01 Set sandstone 16 x 14 x 4 ins 11 ins in the ground for cor to secs 21. 22. 27 & 28 marked 2 notches on S and 3 on E. faces. dug pits 18 x 18 x 12 ins in each sec 5½ ft dist raised mound of earth 2 ft high 4½ ft base alongside. Land rolling
No timber Soil clay 3rd rate

Subdivision T. 33 N. R. 11 W. Continued

Chains At 8 A.M. local attraction has decreased Va 3'
Diurnal change has decreased Va 3'.
N. 89° 35' E. on a true line bet Secs 22 & 27
Va. 12° 11' E.

Ascending
2.00 Top of hill or ridge bears N. and S. - descend
15.50 Ravine course N.W. 30 ft lower than table land
40.00 Set sandstone 16 x 12 x 3 ins 11 ins in the ground for ¼ Sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins. E. & W. of stone 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base alongside.
The above cor stands on top of narrow ridge bears N. & S. Descend
49.90 Ravine course N.W.
65.90 Ravine course N.W. 100 ft below top of hill Ascend.
77.50 Top of ridge brs N. 10° W. & S. 10° E. Descend
80.00 Cor to Sec 22. 23. 26 & 27
Land rolling Soil clay 3rd rate, good for grazing
No timber July 31st 1890.

July 31st 1890. At 9 - A.M. I go to the cor of secs 21. 22. 27 & 28 on the provisional base line and set my compass over the center of the stone and adjust the same to a true meridian by the Solar apparatus. I find the magnetic bearing to be N. 12° 6' W which corrected by table on page 55 of manual gives for local Va. 12° 02' E. thence Drum
S. 0° 01' W bet secs 27 and 28
Va. 12° 06' E.

Over rolling ground
4.60 Ravine course N.E.
20.00 Ravine course S.W.
21.40 Ravine course N.E.
36.00 Ravine course N.W.
40.00 Set a sandstone 16 x 10 x 3½ ins 11 ins in the ground for ¼ Sec Cor Mkd ¼ on N. face dug pits 18 x 18 x 12 ins N. & S. of stone 5½ ft dist raised mound of earth

Subdivision T. 33 N. R. 11 W. Continued

chains
1½ ft high 3½ ft base alongside.
42.00 Ravine course E.
60.00 Summit of divide bet. Niobrara riv. + Ponca cr. brs E + W.
61.60 Divide road brs E + W. Descend S. slope.
65.90 Ravine course SW.
80.00 Set sandstone 16 x 11 x 5 ins 11 ins in the ground for cor to Secs 27. 28. 33 + 34. Mks 1 notch on S. + 3 notches on E. edges dug pits 18 x 18 x 12 ins. in each Sec 5½ ft dist. raised mound of earth 2 ft high 4½ ft base. alongside.
Land rolling and broken Soil clay 3rd Rate good only for grazing.
Timber there is a small clump of Elms E. of line in SW 4 of 27.

N. 89° 35' E. on a random line bet Secs 27 + 34.
Va. 12° 06' E.
40.00 Set temporary ¼ Sec cor.
80.20 Intersect the N + S line 16 lks S of the cor to Secs 26. 27. 34 + 35. Thence I run.
S. 89° 48' W. on a true line bet Secs 27 + 34
Va. same.
Descend.
9.70 Ravine course SE. 40 ft lower than sec cor.
14.20 Ravine course SW
17.50 Ravine course SW
31.20 Ravine course SW
37.30 Ravine course SW. 40 ft lower than top of hills
40.10 Set a hard flinty sand stone 20 x 12 x 3 ins. 15 ins in the ground for ¼ Sec cor. Marked ¼ on N. face dug pits 18 x 18 x 12 ins. E and W. of stone 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base alongside
42.00 Top of hill or ridge brs N. + S.
50.20 Ravine course SW.
55.90 Ravine course SW.
72.70 Ravine course SE. 4 ft deep.
80.20 The cor to Secs 27. 28. 33 + 34.
Land rolling and broken
Soil clay 3rd rate Good only for grazing
No timber

Subdivision T. 33 N. R. 11 W. Continued

Chains
At 11 A. M. diurnal change has decreased Va 6'
Knowing that I will strike the Niobrara river at less than 80. chains. I run.
S. 89° 55' W. on a true line bet Secs 28 and 33.
Va. 12° 01' E.
Over rolling south sloping hill
20.10 Ravine course S. 20 ft lower than gen'l surface
26.00 Ravine course S
40.00 Set sandstone 15 x 9 x 4 ins. 10 ins in the ground for ¼ Sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins. E and W of stone 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base. alongside.
57.00 Ravine course SW. 3½ ft deep.
60.00 Edge of bluff brs NW + SE. and Descend.
61.00 Entre valley bears N. W. and S.E.
63.00 Entre willow brush.
72.60 Intersect the N. bank of Niobrara river set a sandstone 15 x 8 x 4½ ins 10 ins in the ground for Meander Cor. to fract'l Secs 28 + 33 Marked - M.C. on N. face dug a pit 36 ins sq. 1 ft deep 8 lks E of stone and raised mound of earth 2 ft high 4½ ft base, alongside
Land rolling. Soil clay 3rd rate good grazing land
Timber Willow brush on river bank

At 12 M. observe Latitude at cor to secs 27. 28. 33. and 34. and find it to be on instrument N. 42° 48' W.
Diurnal change has decreased Va 2'.
S. 0° 1' W. bet Secs 33 and 34.
Va. 11° 39' E.
Over descending ground
20.30 Ravine course N.E.
30.50 Ravine course SW.
40.00 Set a sandstone 16 x 10 x 3½ ins. - 11 ins in the ground for ¼ Sec cor. marked - ¼ on W. face dug pits 18 x 18 x 12 ins. N. + S. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base. alongside
41.75 Edge of bluff brs NW and SE. Descend

Subdivision T. 33 N. R. 11 W. Continued

chains

43.00 Foot of steep bank 25 ft high & Enter valley brs N.W. & S.E.
44.30 Enter brush.
47.60 Intersect the left bank of Niobrara river
Set a sandstone 14 x 12 x 4 in 9 ins. in the ground for meander cor to fractl secs 33 & 34. Marked M.C. on S. face dug a pit 36 in sqr. 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base, alongside. No bearing trees in limits
Land rolling S. slope Soil is clay 2d & 3rd rate
Timber is principally brush on river bank
July 31st 1890
To connect the above meander cor with the meander cor of previous surveys on the S. side of the river I go to the standard cor to Secs 33 & 34 on the S. boundary of the township and ran North bet Secs 33 and 34. Va. 13° 20' E. minus decrease of Va since date of survey (1°-16') which gives for true Va. at this time 12° 04' E. Over low bottom and through timber and brush 19.60 chs. Intersect right bank of Niobrara river which deducted from 21.20 chs the distance to river as per original notes leaves 1 60/100 chs which has been washed away by the river. I search for the bearing tree but find none. There is a wide sand-bar in front, banks are low and lined with thick growth of willow brush. I am therefore unable to connect the meander cor. by course and distance. July 31st 1890.

At 6 am Aug 1 I place my instrument over the cor to secs 21, 22, 27 & 28 on the provisional base line and adjusted to a true meridian by the solar apparatus the magnetic bearing of the line thus found is N. 12° 09' W. and Va 12° 09' E. this corrected by table on page 55 of the manual gives for local mean declination 12° 05' E thence
I run

chains N. 0° 1' E. bet Secs 21 and 22
Va. 12° 09' E.
Over rolling ground
2.00 Top of ridge bears N.W. and S.E. 8 ft higher than sec cor.
16.00 Ravine course N.W. 30 ft lower than top of hill
40.00 Set a sandstone 20 x 12 x 3 ins. 15 ins. in the ground for ¼ sec cor. marked ¼ on W. face. dug pits 18 x 18 x 12 ins. N. and S. of stone 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base alongside.
40.50 Ravine course N.W. 25 ft lower than cor.
69.15 Ravine water in holes course N.E. bks 6 ft high
72.00 Ravine course S.E. 5 ft deep
80.00 Set sandstone 16 x 12 x 4 in 11 ins. in the ground for cor to secs 15, 16, 21 and 22 Marked 3 notches on S. and E. faces dug pits 18 x 18 x 12 in. in each Sec 5½ ft dist. raised mound of earth 2 ft high 4½ ft base, alongside
Land rolling & broken by ravines Soil clay
No timber) 3rd rate. good for grazing

N. 89° 55' E. on a random line bet Secs 15 & 22
Va. 12° 09' E
40.00 Set temporary ¼ Sec cor.
80.12 Intersect the N. & S. line 32 lks N. of cor to secs 14, 15, 22 & 23.
Thence I run
N. 89° 51' W. on a true line bet secs 15 & 22
With same Va.
Over undulating valley
8.15 Ravine or Dry creek co. N.E. banks 5 ft high.
12.10 Leave valley & enter rolling ground brs N.E. and S.W.
38.65 Ravine course N. 30 feet lower than gen'l level
40.06 Set sandstone 15 x 12 x 4 in 10 ins. in the ground for ¼ sec cor. marked ¼ on N. face. dug pits 18 x 18 x 12 in. E. & W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside
59.25 Drain course N.W. Enter valley
62.15 Ravine or dry creek water in holes course N.
64.00 Leave valley enter rolling ground bears N. & S.

Subdivision T. 33 N. R. 11 W. Continued

chains

80.12 The cor to secs 15. 16. 21 & 22.
Land rolling soil clay 2nd rate
Stone - in S.E.4 S.W.4 Sec 15 there is a hill or sharp peak covered with stone also a hill in S.E.4 Sec 16
No timber.

N. 0° 1' E. bet Secs 15 and 16
Va 12° 09' E.

Over rolling ground
6.80 Ravine course E.
40.00 Set sandstone 17 x 12 x 3 in 11 ins. in the ground for ¼ Sec cor. marked ¼ on W. face dug pits 18 x 18 x 12 in. E. & W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base, alongside
54.00 Top of bluffs descend into valley bears E. & W.
56.00 Leave bluffs descend to valley 30 ft below
72.80 Enter first bottom bear E. & W.
79.50 Ponca creek 6 ft banks 40 lks wide, water 10 lks wide 6 in deep runs S.E.
79.90 North bank of Ponca creek 5 ft high.
79.97 A Box Elder tree 4 ins dia. and cut 2 notches on N. & S. sides
80.00 Set sandstone 24 x 12 x 3 in 18 ins in the ground for cor to secs 9. 10. 15 & 16. dug pits 24 x 24 x 12 ins. N.E. and N.W. 5½ ft dist from stone and raised mound of earth 2 ft high 4½ ft base alongside. pits S.E. & S.W. impracticable falling on margin of creek from which Cor. A cottonwood 44 ins in dia. bro. N. 76° 10' W. 88 lks dist (no other trees in limits) marked 1 S.9 T.33 N. R.11 W. B.T.
Land hills rolling undulating valley
Soil clay hills 2d & 3rd rate Valley 1st rate
Timber - Willow Box Elder Cottonwood & ash on creek

At 9.-30-A.M. diurnal change has deminished the Va. 2'
N. 89° 55' E. on a random line bet Secs 10 & 15
Va. 12° 07' E.
40.00 Set temporary ¼ sec cor.
80.20 Intersect N. & S. line 15 lks N. of Cor. to

Subdivision T. 33 N. R. 11 W. Continued

chains 10. 11. 14 and 15
Thence I run.
N. 89° 59' W. on a true line bet Secs 10 & 15
Same Va.
Over undulating foot hills
29.25 Leave foot hills enter level valley bears N.W. & S.E.
40.10 Set sandstone 18 x 12 x 4 ins. 12 ins. in the ground for ¼ sec cor. marked ¼ on N. face. dug pits 18 x 18 x 12 ins. E. and W. of stone 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base, along side.
49.90 Ponca creek 50 lks wide bank 8 ft high, water 10 lks wide 6 ins deep runs S.E.
70.20 Ponca creek banks 8 ft high, 40 lks wide water in channel 10 lks wide 6 in deep runs N.
80.20 The cor to secs 9. 10. 15 & 16.
Land foot hills undulating and level
Soil mixed clay and sandy 1st and 2nd rate
Timber there is considerabe willow & Box Elder.
there is a spring bog on S. slope of bluffs 3 chs N. of line in S.E.4 S.E.4 Sec 10

At 10.-30-A.M. the needle has returned to its mean place
N. 0° 1' E. bet Secs 9 & 10
Va. 12° 03' E.

Over level valley.
10.00 Entering scattering oak timber E. & W.
11.50 A frame store 2 chs W. of line.
16.00 Leave valley and ascend bluffs leave oak timber bears E. & W.
40.00 Set sandstone 15 x 10 x 4 ins 10 ins. in the ground for ¼ Sec cor. marked ¼ on W. face dug pits 18 x 18 x 12 ins. N. & S. of stone 5½ ft dist. raised mound of earth 1½ ft high 3½ ft base, alongside
55.10 Slough or dry creek water in holes course W. Enter valley.
60.00 Leave valley bro E. and W. enter rolling ground.
71.15 Drain course S.E.
80.00 Set sandstone 14 x 4 x 4 - 9 ins in the ground for cor to secs 3. 4. 9 & 10. marked 5 notches on S. & 3 on E faces dug pits 18 x 18 x 12 ins in each sec 5½ ft dist. raised mound of earth 2 ft high

Subdivision T. 33 N. R. 11 W. Continued

chains

4½ ft base alongside.
Land rolling and level Soil creek valley
2nd rate upland clay 2nd rate S of Dry creek.
N. of creek 1st rate
Timber There is Willow Boxelder, Cottonwood
Ash & Oak along the creek and Valley
There is a small frame store at the foot of
bluff in Ponca cr valley in sec 16

At 1 P.M. diurnal change has decreased the
Va. 6'
N. 89°57' E on a random line bet Secs. 3 & 10.
Va. 11°57' E.

40.00 Set temporary ¼ Sec cor.

80.28 Intersect the N. & S. line 6 lks N. of Cor to Secs
2. 3. 10 and 11.
Thence I run
N. 89°58' W. on a true line bet Secs 3 & 10
Va. same
Over rolling table-land

7.70 Ravine course S.

29.30 Slough water in holes course S.

40.14 Set a sandstone 15×12×4 – 10 in. in the ground
for ¼ Sec cor. marked ¼ on N. face dug pits
18×18×12 in. E. & W. of stone 3 ft dist. raised
mound of earth 1 ft high 3 ft base, alongside

41.10 Ravine 6 ft lower than cor course S.

59.20 Ravine course S. 8 ft deep.

80.28 The cor to secs 3. 4. 9 & 10.
Land rolling on E 60 chs; W. 20 chs undulating
Soil clay E. ½ 2nd rate W. ½ 1st rate.
No timber.

N. 0° 1' E. on a random line bet Secs 3 and 4
Va. 11°57' E.

40.00 Set temporary ¼ Sec cor.

79.95 Intersect the N. boundary of the Tp. 32 lks W.
of the cor to Secs 3. 4. 33 & 34. which is a sand-
stone firmly set and properly marked and witnessed
as heretofore described in the notes of exterior
boundaries of T. 33 N. R. 11 W.

Subdivision T. 33 N. R. 11 W. Continued

chains

Thence I run.
S. 0° 15' W. on a true line bet Secs. 3 & 4
With same Va.
Over rolling ground ascending.

7.40 Drain course N.E.

25.00 Top of ridge descend

29.05 Short ravine course S.W.

38.40 Gulch head E. of line course S.W.

39.95 About half way up the bank of ravine
Set sandstone 20×12×3 in. 15 in. in the ground
for ¼ Sec cor. marked ¼ on N. face dug pits
18×18×12 in. N. & S. of stone 3 ft dist. raised
mound of earth 1 ft high 3 ft base

41.00 Top of bank descend over smooth prairie

76.05 Wagon road bears N. 16° E. and S. 16° W.

79.95 Cor to Secs. 3. 4. 9 & 10.
Land N. ½ rolling S. ½ gentle S. slope
Soil clay N. ½ 2nd rate S. ½ 1st rate.
No timber Aug 1st 1890.
I now return to Base Line

At 4.30 P.M. Aug 1st 1890. I set my instrument over
the cor to secs 20 21. 27 & 28 and adjust it to
a true meridian by the Solar apparatus
It magnetic bearing is now N. 12° 10' W. which
corrected by table on page 55. of the manual
gives for mean local Va 12° 00' E. Thence
I run
South bet Secs 28 & 29
Va 12° 00' E.
Over ascending rolling ground

40 Road bears N.E. and S.W.

7.50 Ravine course S.E.

11.70 Divide wagon road bears E. & W.

12.00 Top of divide bet Niobrara river & Ponca cr, E. & W. bears

15.81 Gulch course S.E. 10 ft deep

33.50 Gulch course S.W. 75 ft lower than top of hill.

40.00 Set a sandstone 15×10×3½ – 10 in. in the ground
for ¼ Sec cor marked ¼ on W. face, dug pits
18×18×12 in. N. & S. of stone 3 ft dist. raised
mound of earth 1 ft high 3 ft base, alongside

48.00 Ravine course S.W.

Subdivision T. 33 N. R 11 W. Continued

71.00 Leave bluffs & enter Niobrara River valley bears N.W. & S.E. Enter brush.

74.60 Intersect the left bank of the Niobrara river
Set a sandstone 20 x 8 x 3½ in 15 ins. in the ground for meander cor to fractl Secs 28 & 29 Mk'd M.C. on S side dug a pit 36 in sq. 8 lks N. of stone and raised mound of earth 2 ft high 4½ ft base. alongside
To connect my meander cor. with the meander cor of previous survey on the S side of the river I go to the standard cor. to Secs 32 & 33 on the S. boundary of the Tp. and run
North bet Secs 32 & 33. — Va. 13° 20' E.
Minus decrease of Va since date of original survey 19 yrs. 1. 16'
Va 12° 04' E

40.00 found ¼ Sec cor.
50.00 Enter bottom bears S.E. & N.W.
55.40 Intersect right bank of Niobrara river which deducted from 56.80 the distance to the meander cor as per notes of the original survey leaves 1.40 chs for distance washed away by the river, including the meander cor and bearing trees. I therefore am unable to connect the surveys
Land along my line is rolling and broken
Soil clay 2d & 3rd Rate
Timber. Willow bursh & young cottonwood or river bank

At 6 A.M. Aug. 2d 1890 at the cor. to secs 20. 21. 28 & 29. on the Provisional base line I determine the bearing of the true meridian by the Solar compass which is N. 12° 12' W. which corrected by table on page 55 of printed manual gives for the mean local declination 12° 06' E.
Thence I run.
North bet Secs 20 & 21
Va. 12° 10' E

Subdivision T. 33. N. R. 11 W. Continued

chains Over rolling and gradual descending ground
6.00 Drain head about 3 chs S.E. 10 ft deep course N.W.
15.00 Ravine course N.W.
40.00 Set sandstone 16 x 12 x 4 in 11 ins in the ground for ¼ Sec cor. Mk'd ¼ on W. face dug pits 18 x 18 x 12 in. N. & S of stone 5 ft dist. raised mound of earth 1½ ft high 3½ ft base alongside
51.20 Ravine course N.W.
74.70 Ravine course N.W.
80.00 Set sandstone 16 x 12 x 4 in 11 ins in the ground for cor to secs 16. 17. 20 and 21 Masked 3 notches on S. and 4 on E. faces dug pits 18 x 18 x 12 in. in each sec 5 ft dist raised mound of earth 2 ft high 4½ ft base alongside.
Land rolling and broken
Soil clay 3rd rate
No timber.

N. 89° 55' E. on a random line bet Secs 16 & 21
Va 12° 10' E.

40.00 Set temporary ¼ Sec cor.
79.86 Intersect the N. & S. line 2 lks S. of cor to secs 15. 16. 21 & 22
Thence I run
S. 89° 54' W. on a true line bet, Secs 16 & 21
With Same Va.

Over rolling and ascending ground
8.85 Top of gravelly hill descending
37.15 Ravine course N.E.
39.93 Set sandstone 17 x 8 x 4 in 11 ins. for ¼ sec cor in the ground marked ¼ on N. face dug pits 18 x 18 x 12 in E. & W. of stone 5 ft dist raised mound of earth 1½ ft high 3½ ft base alongside.
46.85 Ravine course N.
68.85 Ravine course N.E.
79.86 Cor to Secs 16. 17. 20 & 21
Land rolling and broken Soil clay 3rd rate
Stone - there is sandstone S of ¼ Sec cor. along (No timber) the brow of high steep hill

Subdivision T. 33 N. R. 11 W. Continued

chains	
	At 7.30 AM diurnal change has increased Va 2'
	North bet Secs 16 and 17 Va. 12° 12' E.
	Over rolling and broken ground.
26.50	Enter valley bears E. and W.
30.35	Leave valley and enter rolling ascending hills bears E. & W.
40.00 +	Set sandstone 17 x 6 x 5 ins 11 ins in the ground marked ¼ on W. face dug pits 18 x 18 x 12 ins N. and S. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside.
43.65	Ravine course E. 20 ft deep
47.00	Ravine course S.E. 20 ft deep.
55.85	Ravine course S.E. 20 ft deep
59.00	Wagon road on top of divide bears E. and W. Gentle North descent.
65.30	Ravine course N.W. 3 ft deep.
76.00	Descend bluffs to second bench E. and W.
80.00	At foot of bluff set a sandstone 17 x 15 x 4 ins 11 ins in the ground for cor to secs 8. 9. 16 and 17 Marked 4 notches on S. & 4 on E. edges dug pits 18 x 18 x 12 ins. in each Sec 5½ ft dist and raised mound of earth 2 ft high 4½ ft base alongside, from which An Oak 16 ins dia. bears N. 73° 05' W. 1 88 chs dist. marked B.T.S. 8 T 33 N R. 11 W. Land rolling and broken Soil clay good grazing land 3rd rate. There is some oak timber in the ravine at 65.50 chs. west of line, also a few trees in gulches S of the wagon road.
	N. 89° 55' E. on a random line bet Secs 9 and 16 Va. 12° 12' E.
40.00	Set temporary ¼ Sec cor.
79.72	Intersect the N. & S line 10 lks S. of the cor to secs 9. 10. 15 & 16 Thence I run S. 89° 51' W. on a true line bet Secs 9 and 16

Subdivision T. 33 N. R. 11 W. Continued

Chains	With same Va.
	Over level valley
1.50	Center of Ponca creek - water channel 10 lks wide 6 ins deep runs S.E. high banks 1 ch wide
39.86	Set sandstone 17 x 10 x 4 ins - 11 ins in the ground for ¼ Sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E. & W. of stone 5½ ft dist raised mound of earth 1½ ft high 3½ ft base alongside
51.50	Leave valley and ascend steep bank bears N. and S.
54.00	Top of bank
	Over undulating second bench
57.50	Road bears N and S.
79.72	The cor to secs 8. 9, 16 and 17
	Land level valley gently rolling 2nd rate bench land
	Soil clay loam 1st rate
	Timber along the creek, Willow box elder, cottonwood, Ash and oak. A settler on S.E.¼ S.W.¼ Sec 9.
	North bet secs 8 and 9. Va. 12° 12' E.
	Descending
14.00	Foot of bluff enter 1st bottom N.E. & S.W. bluff 31 ft high
40.00	Set a sandstone 16 x 8 x 5 ins 11 ins in the ground for ¼ sec cor marked ¼ on W. face dug pits 18 x 18 x 12 ins N. & S. of stone 5½ ft dist raised a mound of earth 1½ ft high 3½ ft base alongside.
47.00	Ponca creek channel of running water 10 lks wide 6 ins deep runs S.E.
55.00	Leave valley and ascend sandy and gravelly bluff bear E. and W.
72.00	Top of ridge descend.
80.00	Set sandstone 16 x 11 x 4 ins 11 ins in the ground for cor to secs 4. 5. 8 & 9 marked 5 notches on S. and 4 on E. faces dug pits 18 x 18 x 12 ins. in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside. Land rolling 2nd bench and creek valley is clay 1st rate. ridge N. of creek 3rd rate

Subdivision T. 33 N. R. 11 W. Continued

Chains	
	At 9.30 A. M. diurnal change has diminished Va 3'
	N. 89° 55' E. on a random line bet Secs 4 and 9 Va. 12° 09' E.
40.00	Set temporary ¼ Sec cor.
79.60	Intersect the N. & S. line 10 lks S. of Cor to Secs 3. 4. 9 and 10.
	Thence I run
	S. 89° 51' W. on a true line bet Secs 4 and 9 With same Va
	Over smooth table land
1.25	Wagon road bears N. 16° E. and S. 16° W.
15.00	Descend
22.00	Enter valley bears N. & S.
25.50	Leave valley and enter low divide bet valleys 8 ft high bears N. & S.
39.80	Set a sandstone 15 x 13 x 4 ins 10 ins. in the ground for ¼ Sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins N. & S. of stone 5½ ft dist raised a mound of earth 1½ ft high 3½ ft base alongside
* 76.50	Leave valley and enter bluffs ascending along gradual N. E. slope bears N. W. and S. E.
78.00	Leave low divide and enter valley bears N. W. & S. E.
* 76.50	Leave valley & enter bluffs ascending &
79.60	The cor to secs 4. 5. 8 and 9.
	Land rolling – Soil clay 1st and 2nd rate
	No timber good hay in valleys. There is a settler in N. W. ¼ Sec 9

	At 10.30 A. M. the needle has returned to its mean place.
	North on a random line bet Secs 4 and 5 Va. 12° 06' E.
40.00	Set temporary ¼ sec cor.
80.07	Intersect the N. boundary of the Township 13 lks E. of the cor to secs 4. 5. 32 & 33 which is a sandstone firmly set and properly marked and witnessed as heretofore described in the survey of the exterior boundaries of T. 33 N. R. 11 W.
	Thence I run

Subdivision T. 33 N. R. 11 W. Continued

chains	
	S. 0° 06' E. on a true line bet Secs 4 and 5 With same Va.
	Over undulating prairie
25.95	Ravine 8 ft deep course S. W. forms a short distance E. of line.
40.07	Set a sandstone 18 x 12 x 3 ins 12 ins. in the ground for ¼ sec cor. marked ¼ on W. face dug pits 18 x 18 x 12 ins. N. and S. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base alongside.
55.00	Descend over gravelly hills.
75.50	Enter valley bears N. W. and S. E.
77.50	Leave valley and ascend bluff bears N. W. & S. E.
80.07	Cor to secs 4. 5. 8. and 9.
	Land rolling. Soil clay. Table land 1st rate Gravelly hills 3rd rate. valley good hay land. No timber.

	At 2 P. M. Aug 2nd I ascertain the magnetic bearing of the true meridian at the cor to secs 19. 20. 29 and 30. on the Provisional Base Line. to be N. 12° W by the Solar compass, which corrected by table on page 35. of the manual gives for local mean declination 12° 06' E.
	Thence I run
	S. 0° 1' E. bet secs 29 and 30 Va. 12° E.
2.00	Summit of divide bet Niobrara River and Ponca cr. about 4 ft higher than sec cor. bears S. E. and N. W. descend S. slope.
24.50	Ravine course S. W.
33.00	Enter valley and leave bluffs bears N. W. & S. E. enter brush
36.60	Intersect the Left bank of Niobrara River
	Set a sandstone 22 x 8 x 4 ins 16 ins in the ground for meander cor to fractional secs 29 & 30. marked M. C. – on S. face dug a pit 36 ins sq 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside.
	Land along my line is rolling and broken Soil 2nd and 3rd rate There is some timber in

Subdivision T. 33 N. R. 11 W. Continued

chains the ravine at 24.50 chs and along the face of the bluffs.
To connect the above meander cor with the meander cor on the right bank I go to the cor to secs 29.30.31 and 32 I run N. bet secs 29 and 30 at a Va of 13° 20' E. minus decrease of Va for 19 yrs 1° 16' which gives for the present Va. 12° 04' E
At 8.50 chs. slough 80 lks wide course E.
" 24.20 " the point for meander cor as per distance recorded in original notes I make diligent search but find no trace of any cor. nor any signs of bearing trees. Neither is this point on right bank of river.
" 32.08 chs. I intersect the right bank of Niobrara River. Here no meander cor can be found or any blazed trees discovered although there are several along the bank. I am therefore unable to connect the surveys at this point.

At 9.31 A. M. Aug 3rd I proceed to the cor to Secs 19.20.29 and 30. on the Provisional Base line. With my instrument set over the center of the cor. I adjust it to the true meridian by the Solar apparatus, its magnetic bearing is N. 12° 08' W. which corrected by table on page 55 of the printed manual gives for mean declination 12° 06' E
N. 0° 1' W. bet secs 19 and 20.
Va. 12° 08' E.
Over descending rolling ground.
2.80 Divide road bears E. and W.
38.70 Ravine 10 ft deep course E.
40.00 Set a sandstone 14 x 12 x 4 ins 9 ins. in the ground for ¼ sec cor. marked ¼ on W. face dug pits 18 x 18 x 12 ins N. and S of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base, alongside
44.65 Ravine course N.E.

Subdivision T. 33 N. R. 11 W. Continued

Chains
66.50 Ravine course E.
80.00 Top of hill set a sandstone 20 x 14 x 3 ins 15 ins in the ground for cor to secs 17.18.19 and 20. Marked 3 notches on S. and 5 notches on E. face dug pits 18 x 18 x 12 ins. in each sec 5½ ft dist. and raised a mound of earth 2 ft high 4½ ft base. alongside.
Land rolling and broken, Soil clay 3rd rate good for grazing.
No timber.

N. 89° 55' E. on a random line bet Secs 17 and 20
Va. 12° 08' E.
40.00. Set temporary ¼ sec cor
79.80 Intersect the N. & S. line 23 lks N. of the cor to secs 16.17.20 and 21
Thence I run
N. 89° 55' W. on a true line bet Sec 17 and 20
With same Va
Over rolling clay hills.
6.30 Ravine course N.W.
19.80 Ravine course N.W.
26.80 Ravine course N.E.
32.95 Ravine course N.E.
39.90 Set a sandstone 16 x 12 x 3 ins 11 ins. in the ground for ¼ sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside
54.60 Drain course N.W.
63.00 Enter valley bears N. & S.
68.80 Dry creek. Water in holes course N. leave valley and ascend steep bank
79.80 The cor to secs 17.18.19 and 20.
Land rolling and broken
Soil clay 3rd rate farm land good grazing land
Timber clumps of brush and a few elm trees along dry creek

Subdivision T. 33 N. R. 11 W. Continued

Chains

S. 89°55' W. on a random line bet secs 18 and 19
Va. 12° 18' E.

40.00 Set temporary ¼ sec cor.

79.30 Intersect the N. boundary of the Township 2 lks. S. of cor to Secs 13. 18. 19 and 24. which is a sandstone firmly set and properly marked and witnessed as heretofore descibed in the notes of the exterior boundaries of T. 33 N. R. 11 W.

Thence Run

N. 89°56' E. on a true line bet secs 18 and 19
With same Va.

Over gently rolling prairie

1.30 Wagon road N. and S.

39.30 Set a sandstone 18 x 12 x 3 ins. 12 ins in the ground for ¼ sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins. E. & N. of stone 5½ ft dist. and raised mound of earth 1½ ft high 3½ ft base alongside

43.25 Ravine course N. 10 ft deep

79.30 The cor to secs 17. 18. 19 and 20.

Land smooth table. Soil clay 1st rate

There is a settler in S W ¼ Sec 18. has sod house and a dug well 10 ft deep in a ravine 8 ft deep - good water

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At 12 M. I observe Latitude and find it to be N. 42°50'

At 1 P. M. diurnal change has decreased the Va. 8'

N. 0° 1' W. bet secs 17 and 18
Va 12° 00' E.

Over rolling and broken hills.

10.00 Ravine course N. W.

29.85 Ravine course N. W.

40.00 Set a sandstone 20 x 12 x 3 ins. 15 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins. N. & E. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base alongside

46.60 Wagon road on top of divide bears E. and W.

Subdivision T. 33 N. R. 11 W. Continued

Chains

62.50 Ravine course N. W. 30 ft lower than top of ridge

69.75 Ravine course N. W. 31 ft lower than top of ridge
Ascend along W. slope of ridge

80.00 On W. slope about 4 ft lower than top of ridge on E.
Set a sandstone 18 x 12 x 3 ins 12 ins. in the ground for cor to secs 7. 8. 17 & 18 Marked 4 notches on the S. and 5 on E. face dug pits 18. 18 x 12 ins in each sec 5½ ft dist & raised a mound of earth 2 ft high 4½ ft base. alongside
Land rolling and broken Soil clay 3rd rate
No timber.

N. 89°55' E. on a random line bet Secs 8 and 17
Va. 12° E.

40.00 Set temporary ¼ Sec cor.

80.02 Intersect the N. & S. line at the cor to secs 8. 9. 17 & 18

Thence Run

S. 89°55' W. on a true line bet secs 8 and 17
With same Va.

Over rolling clay hills

2.50 Ravine 10 ft deep course N. here leave second bench and enter hills N. & S.

17.35 Ravine course N. W. 15 ft deep

20.00 Ravine course N. W. 20 ft deep

27.90 Ravine course N. W. 20 ft deep

40.01 On W. slope of hill Set a sandstone 18 x 14 x 4 ins 12 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E. & N. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

40.50 Foot of hill 10 ft lower than corner enter ravine

41.50 Leave ravine course N. ascend hill.

69.60 Ravine course N. 20 ft deep

79.00 Top of ridge bears N.W. & S.E. descend

80.02 The cor. to secs 7. 8. 17 and 18

Clay soil 3rd rate farm land good for grazing

Land broken and rolling foot hills

Timber - there is some timber in the ravine N. of cor to secs 16 & 17, in ravines and along the bluffs

Subdivision T. 33 N. R 11 W. Continued

Chains	
	S. 89°55' W. on a random line bet secs 7 and ~~12~~ 18 Va. 12° E.
40.00	Set temporary ¼ sec cor.
79.40	Intersect the W. boundary of the Township 15 lks S. of cor to secs 7. 12. 13 and 18 which is a sandstone firmly set and properly marked as heretofore described in the notes of the survey of the exterior bounderies of T. 33 N. R 11 W.
	Thence I run
	S. 89°59' E. on a true line bet secs 7 and 18 With same Va.
2.40	Ravine course N. W. ascend
6.00	Ridge bears N. and S. descend
10.80	Ravine course N. W. ascend
20.00	Ridge course N. & S. descend
29.20	Ravine course N.
38.00	Ridge bears N. & S. descend
39.40	On the E slope of ridge. Set a sandstone 16 x 12 x 3 in. 11 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 in. E and W. of stone 5½ ft dist. and raised mound of earth 1½ ft high 3½ ft base. alongside
40.20	Ravine course N.
50.50	Ravine course N. W.
71.05	Ravine bears N. W. ascend gradual slope
79.40	The cor to secs 7. 8. 17 and 18
	Land rolling and broken W½ is 3rd rate farm land E½ slopes are gradual
	Clay soil - and 2nd rate land
	Good grass - No timber
	N. 0° 1' W. bet secs 7 and 8 Va. 12° E.
	Over rolling ground ascending
1.00	Top of ridge 3 ft higher than sec cor, descending
37.40	Leave hills and enter valley bears N. E. and S. W. Over level valley.
40.00	Set a sandstone 18 x 13 x 4 in. 12 in. in the ground for ¼ sec cor marked - ¼ on W. face dug pits 18 x 18 x 12 in. N. & S. of stone 5½ ft dist and raised a

Subdivision T. 33 N. R. 11 W. Continued

chains	
	mound of earth 1½ ft high 3½ ft base, alongside
63.45	Ponca creek banks 8 ft high lined with brush channel 15 lks wide 6 in. deep runs S. E.
74.75	Leave valley and ascend gravelly bluffs bears E. & W.
80.00	Set a sandstone 24 x 12 x 3 in. 18 in. in the ground for cor to secs 5. 6. 7 and 8 marked. 5 notches on S. and E. faces dug pits 18 x 18 x 12 in. in each sec 5½ ft dist. and raised a mound of earth 2 ft high 4½ ft base alongside.
	Land - hills on S side rolling gravelly 3rd rate farm land. Valley level clay soil 1st. hills on N. side gravelly 3rd rate.
	Timber. There is Willow, Ba Elder, Cottonwood and Ash along the cr. in places there is some oak
	At 4 P. M. diurnal change has increased Va 3'.
	N. 89°55' E. on a random line bet secs 5 and 8 Va. 12° 03' E.
40.00	Set temporary ¼ sec cor
80.14	Intersect the N. and S. line 10 lks S. of cor to secs 4. 5. 8 and 9.
	Thence I run
	S. 89°51' W. on a true line bet secs 5 and 8 With same Va.
	Over rolling ground ascend.
20.00	Top of gravelly and sandy ridge bears N. W. & S. E. Descend along S. slope of bluffs
40.07	Set a sandstone 16 x 8 x 4 ins 11 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 in. E. & W. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside
69.00	Over spring bog on side of hill 4 chs wide
73.00	Enter spring boggy marsh 3 chs wide.
80.14	The cor to secs 5. 6. 7 & 8.
	Land rolling ridge runs S. E. through the E½
	Sandy soil 3rd rate.
	The W½ lies along on S. slope of ridge among foot hills Soil 3rd rate.
	Fine spring of water was found in the spring bog by a little digging
	No timber

Subdivision T. 33 N. R. 11 W. Continued

chains	
	S 89° 55' W. on a random line bet secs 6 and 7 Va. 12° 03' E
40.00	Set temporary ¼ sec cor
79.36	Intersect the N. boundary of the Tp. 16 lks S. of the cor to secs 1. 6. 7 and 12 which is a sandstone firmly set and properly marked and witnessed as heretofore described in the notes of the survey of the exterior boundaries of T. 33 N. R. 11 W.
	Thence I run.
	S. 89° 38' E. on a true line bet secs 6 and 7 With same Va.
4.75	Leave second bottom and enter first bottom bears N. 78° W. and S. 78° E. bench 6 ft high.
8.00	Pond 10 lks wide course S.E. and N.W.
24.35	Ponca creek. water in channel 10 lks wide runs S.E. bank 8 ft high.
39.36	Set a sandstone 15 x 12 x 5 ins 10 ins. in the ground for ¼ sec cor. marked ¼ on N face dug pits 18 x 18 x 12 in. E. and W of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base alongside at foot of 2d bench
39.65	Second bench bears N.W. and S.E.
	Over gently rolling second bench
76.35	Ravine course S. 8 ft deep.
79.36	The cor to secs 5. 6. 7 and 8.
	Land undulating valley second bench gently rolling. Soil clay valley 2nd rate Timber there Willow. Box elder Cottonwood Ash and Elm and some oak on creek. N. of creek is scattering brush in valley

---

At 6 P. M. diurnal change has increased the Va 3'. N. 0° 1' W. on a random line bet secs 5 and 6 Va. 12° 06' E.

chains	
40.00	Set temporary ¼ sec cor.
80.20	Intersect the N. boundary of the township 8 lks N. of the cor to secs 5. 6. 31 & 32 which is a sandstone firmly set and properly marked & witnessed as heretofore described in the notes of exterior boundaries of T. 33 N. R. 11 W.

Subdivision of T. 33 N. R. 11 W. Continued

chains	
	Thence I run
	S. 0° 03' W. on a true line bet secs 5 and 6. With same Va.
	Over rolling ground
40	Bottom of ravine course S.E. 4 ft lower than cor Ascend.
4.00	Enter table land descending.
27.10	Ravine course S.E.
31.20	Enter sandy basin the bed of a broad sand-ravine thence up ravine.
40.20	Set a sandstone 26 x 6 x 6 ins. 20 ins in the ground (sand) for ¼ sec cor marked ¼ on W face dug pits 24 x 24 x 12 ins N. & S. of stone 5½ ft dist. and raised a mound of earth & sand 1½ ft high 4½ ft base alongside.
44.70	N. edge of bank of ravine or basin bears E. & W. Over descending ground (gentle)
80.20	The cor to secs 5. 6. 7 and 8
	Land rolling
	Soil varied - S. 35.50 chs sandy 2d rate and 3rd rate Next 17.50 chs mostly white washed sand in bed of a broad ravine 4th rate N. 27 chs clay 2d rate.
	Timber - there is some young cottonwood growing in the N end of the sand-basin in the bed of ravine where it turns E.
	Aug. 3rd 1870.

Meander of the left bank of the Niobrara river up stream. I commence at the meander cor to fract'd sec 35. on the 8th Standard Parallel N. 25 chs 50 lks W. of the standard cor to secs 35 & 36 said M.C. is a sandstone firmly set and properly marked and witnessed in the notes of survey of said Parallel.

I set my compass over the cor and take a back sight to the Standard cor to sec 35 & 36 and lay off from this line an angle of 90° to the North which give the

Meanders T. 33 N. R. 11 W. Continued

course true meridian its magnetic bearing is N. 11°57' W. at 1 P. M. July 29th The Va. is 11°57' E.
Thence I run with meanders in Sec 35.
Va. 11°57' E.

Over level ground.

N. 83¾° W. 14.60 ch.
N. 78½° W. 8.18 to meander cor to fractional sec. 35 on the 8th Standard Parallel which is a sandstone as heretofore described in the notes of survey of said Parallel.
22.78
Land level Soil sandy 2nd rate
I now go to the meander cor. on said parallel 55 ch. 40 lks N of the cor to sec 35 and 36 which is a sandstone firmly set and properly marked and witnessed as heretofore described in the notes of said Parallel. from which I continue the meanders of sec 35.
Va 11°57' E.

N. 54½° W. 2.00 ch.
S. 81½° W. 4.45 "
S. 64¾° W. 1.20 " Land level Soil dark sandy loam
7.65 2nd rate No timber
July 29th 1890.

Meanders of the left bank of the Niobrara River upstream in sec 34.

I commence at the meander cor. on the 8th Standard Parallel (47.10 chs W of the cor to sec 34 and 35) which is an ash post and properly marked and witnessed as heretofore described in the notes of said Parallel. I set my compass over the cor and adjust it to a true meridian by the Solar apparatus the true magnetic bearing of which I find to be N. 11°59' W. and the Va. is 11°59' E.
July 31st 1890 at 3 P. M.

Meanders T. 33 N. R. 11 W. Continued

course Thence I run
Va 11°59' E.
Through small brush and young cottonwood.
N. 38¾° W. 12.00 ch. bank 3 to five feet high.
N. 73° W. 5.00 "
N. 31½° W. 13.00 "
N. 53° W. 2.00 "
N. 43° W. 4.30 "
N. 41° W. 6.00 "
N. 77½° W. 4.50 "
N. 55° W. 1.20 " to meander cor to fractional secs 33 and 34.
38.00
Land level Soil sandy 3rd rate.
Brush and small cottonwood 48 ch.

Thence in sec 33.
Va. 11°59' E.
Through small brush
N. 55° W. 3.50 ch.
N. 20° W. 6.00 "
N. 65¼° W. 13.00 " At 2 ch enter prairie
N. 85° W. 6.20 " At 5 ch enter small brush along narrow bottom.
28.70
N. 45° W. 11.00 "
N. 41° W. 8.00 "
N. 57¼° W. 11.00 "
N. 80° W. 3.00 "
N. 65½° W. 3.00 "
N. 43° W. 7.00 "
N. 66½° W. 15.00 "
N. 64° W. 1.40 "
N. 55½° W. 2.00 " to meander cor to fractional secs 28 and 33
61.40
Land level Bank about 3 ft high
Soil sandy 3rd Rate
Timber small brush and trees 74.10 ch
July 31. 1890

Aug 1st At 6 P. M. I set my compass over the meander cor to fractional secs 28 and 33 and adjust it to a true meridian which

Meanders T. 33 N. R 11 W. Continued

courses I find to be N. 12° 03' W. and Va. 12° 03' E.
Thence I run with meanders in sec. 28.
Through small brush
N. 54° W. 9.20 ch. to meander cor to fractional secs 28 and 29.
Land level Soil sandy 3rd rate.
Brush 9.20 ch. Aug 1st

ch. Aug 2. 4 P. M. I set my compass over the meander cor. to fractional secs 28 and 29 and adjust it by the Solar apparatus to a true meridian which is N. 12° 03' W. and Va. 12° 03' E.
Thence I run with meanders in sec 29.
Va. 12° 03' E.
Through small brush and scattering cottonwood and box alder
N. 38½° W. 4.70 ch.
N. 73¾° W. 4.00 "
N. 63¾° W. 6.00 "
N. 6° W. 18.00 " At 2 ch enter thick willows
N. 63½° W. 13.00 " Enter small willow brush
N. 80° W. 10.00 "
N. 71° W. 3.00 "
N. 59° W. 23.00 "
N. 73¾° W. 7.20 " to meander cor bet fractional secs 29 & 30.
88.90
Land level bottom along narrow valley
Soil sandy 2nd and 3rd rate
Brush and small scattering trees 88.90 ch.
Aug 2 1890

Aug 3rd 6 A. M. I set my compass over the meander cor to fractional secs 29 and 30. and take a backsight to a flag on the bluff N. of the cor which has a bearing of N. 12° 10' W. and Va 12° 10' E.
Thence I run with the meanders in sec 30
Va. 12° 10' E.
Through willow brush.
S. 86¾° W. 3.00 ch.
N. 71½° W. 19.00 "
S. 56° W. 8.00 " leave brush and ascend high clay banks
30.00

Meanders T. 33 N. R. 11 W. Continued

courses
N. 66½° W. 12.00 ch.
N. 76¾° W. 22.00 " At 5 ch. wagon bridge across river which
34.00 is about 20 ft for 3 ch. long
N. 87½° W. 13.00 "
N. 86 30' W. 5.70 " to meander cor bet fract'l secs 25 & 30
18.70 on the W. boundary of the Township which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T. 33 N. R. 11 W.
Land level and rolling
Soil clay and sandy 3rd rate
Willow brush 22.00 ch.
Aug 2. 1890
There is 3 mi 2 ch 20 lks of meander lines through brush and timber and 2 ch 15 lks of the subdivision lines.

Note - In marking the stone sec. cor's I found that the notches could not be cut on the cor's so as to be clearly read on account of being hard and brittle so I caused the sec cor's to be set with the narrow edges N and S and the flat sides E and W. on the S edges and E sides the notches or bars not less than 2 in long and are much plainer and more easily read
The stones cannot be broken or trimmed to desireable sizes without danger of breaking them as they are found they make good stong and durable corners

General Description

The surface of this Tp. is varied being level or and river valley - and high valley Table-land.
Niobrara River valley is very narrow clay and sandy soil 2nd and 3rd rate
Ponca cr. runs through the N. part, the stream is only 10 to 20 lks wide and 6 in deep and has banks from 6 to 8 ft high generally about 1 ch. from bank to bank at the top

T. 34 N. R. 11 W.
T. 33 N. R. 11 W.
T. 33 N. R. 12 W.
T. 34 N. R. 12 W.

and from the appearance of the banks I am of the opinion that it now carries its normal amount of water and is not a milling stream.
The valley is about ½ to 1 mi. wide and is generally sand and clay soil
The table-land bet Niobrara River and Ponca creek is a high rolling divide with dividing ridge about 1 mi N. of the Niobrara R.
there is a good wagon road along the ridge.
The table land is rolling and broken and is more adapted for grazing than farming
N. of Ponca cr. the table land is much better and smoother land
Timber - there is willow brush, box elder, Ash, cottonwood and elm along the Niobrara and Ponca creek also oak on latter stream
There are a number of squatters or settlers in the Tp. along Ponca cr. living in small rude dug-out and sod-huts. There is a small frame store in S.E. cor of sec 16. but will be moved away soon. A number of fine springs of cold water were found along the bluffs N. of creek. Stone was found in sec 16 to supply cor's for the 4 N. tiers of secs in the Tp. they are hard sandstone and will make good foundation.

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
.....
..... Meridian, in ....., showing the respective capacities in which they acted:
.....
.....
.....
.....
.....
.....
.....
.....

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
.....
..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....
.....

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Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the, U. S. ~~Surveyor General for~~ General Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Fractional Township 33 North, Range 11 West of the 6th Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 8th day of April, 1891.

C. E. Forbes
Clerk Dist. Court
Fall
[illegible] R.

Approval.

Office of the ~~U. S. Surveyor General~~ Commissioner, Gen'l Land Office, Washington, D.C. June 30, 1891.

The foregoing field notes of the survey of Subdivisional line in fractional T. 33 N., R. 11 W. of the 6th P.M. State of Nebraska.

executed by U.S. Surveyors Nicholas J. Paul and Robert Harvey under ~~his~~ their Contract No. —, dated May 26th, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

J. H. Carter
Commissioner, General Land Office
Ex-Officio Surveyor General
~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.~~

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U. S. Surveyor General.

(4—679.)

FIELD NOTES

OF THE SURVEY OF

Subdivisional lines in Fractional Township 34 North Range 11 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. ....., dated May 26, 1890.

Survey commenced August 5th, 1890.

Survey completed August 10th, 1890.

(8780—2,000.) 6—151

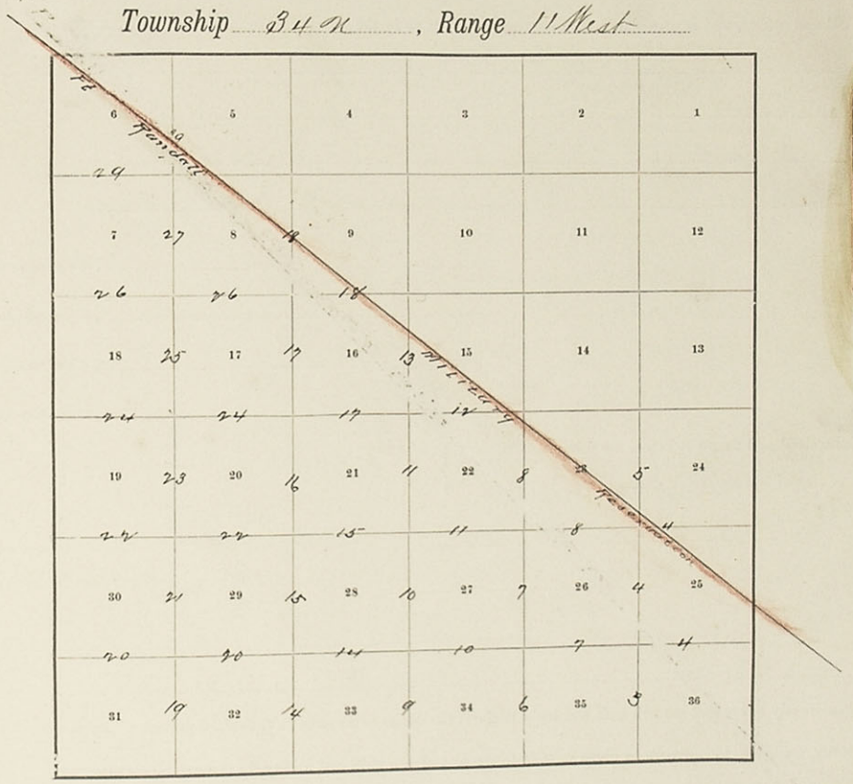
T. 34 N. R. 11 W. 35 R. 11 T. 33 R. 12 T. 21 R. 12 T. 35 R. 12

Names and Duties of Assistants.

Benjamin A Davidson Chainman
Charles A Paul Chainman
Henry A Burrell Axeman
Duncan C Lyle Axeman
Jonathan L. Peden Flagman

INDEX DIAGRAM.

Township 34 N , Range 11 West



Meanders Page

T.34 R.11 W.
T.34 R.11
T.33 R.12
T.34 R.12
T.35 R.12

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

..... , *Axeman.*

..... , *Axeman.*

.....

.....

6—151

Subdivisions T 34 N. R. 11 W.

Survey commenced Aug 5th 1890 with a Burts Improved Solar Compass made by Wm J. Young of Philadelphia Penn. and numbered 4432. Examined, tested and approved by the Surveyor General of S.D. July 4th 1890.

Preliminary to commencing the survey of this Township I go to the S.E corner of the Township which is a hard sandstone firmly set 7x12x14 ins above ground. Marked with 6 notches on the N and S edges and on the E and W faces with pits 24x18x12 ins lengthwise on line N. S E and W. 6 ft dist and raised mound of earth 2½ ft high 5 ft base alongside

At 4.00 PM. having set my instrument over the center of the Tp corner. I adjust it by the Solar Apparatus to a true Meridian which agrees with the true Meridian established on the night of July 26th and with a flag North of the ravine on the line between 31 and 36. set at 9.00 am July 11th. My instrument is therefore in perfect adjustment and the meridian thus determined I adopt for governing the course of the N and S lines And the method of obtaining the same I taste from my notes of July 26th to wit:-

Local Astronomical Mean time by my Watch July 26th 1890	8h 53m
Watch fast	3m
Correct Mean Local time of obs.	8 - 50
Polar Mt. U.C. of Polaris Aug 1st 1635	
Reduction for 7 days (Add)	27.487 07.6
Which taken from time of obs. gives hour angle	15. 47.6
Subtract from	23 56.1
Argument for Table II.	8. 08
Azimuth of Polaris Lat 43° (Tab II)	1. 27 E
North end of needle	10 32 E
The sum is the Variation	11° 59' E

This is also the Mean declination by Table in printed Manual page 56. Magnetic bearing of the Star to be N 10° 32' W.

At 4.00 PM. Aug 5th Magnetic bearing of the meridian is N 11° 56' W.

T. 34 N. R. 11 W. (In Pocket)

Pocket 11

T. 33 R. 12

T. 34 R. 12

T. 35 R. 12

Subdivisions T 34 N R 11 W. Continued

From the Township corner I now run
North on the East boundary of sec 36.
Va 11° 56' E.

At 39.99 chs find the 1/4 sec cor & at 80.01 chs
find the corner to secs 25. 30. 31 & 36. on line
The bearing of the Range is therefore North.

At 5^co P.M. I return to the S.E. corner of the
Township and again take the Magnetic bearing
of the Range line which I now find
to be N 11° 58' W.
Thence I run
West along the South boundary of sec 36.
Va 11° 58' E.

At 39.99 chs find the 1/4 sec cor and at 79.98.
find the cor to secs 1. 2. 35 & 36. on line
The true course of the south boundary is
therefore West.
With the above named true bearings the
subdivisional lines of the Eastern tier of
sections corrected by table x for meridional
sec lines
Will be run as required by the printed manu
ual of instructions, My chaining practically
agrees with the original survey - Aug 5th 1890.

At 6^co AM. Aug 6th 1890
I commence at the cor to secs 1. 2. 35 & 36 on the S
boundary of S 36 which is a sand stone firmly
set & properly marked & witnessed as here-
tofore described in the notes of exterior boun-
daries of T 34 N R 10 W.
I set my instrument over the center of the cor-
ner & adjust it by the solar apparatus to
a true meridian which I find has a
magnetic bearing of N 12° 03' W & the Va
is 12° 03' E. which corrected by table on page
55 of the manual gives for Mean declination
11° 59' E.

Subdivisions T 34 N R 11 W Continued

Chains	
	Thence I run
	North 0° 1' W bet secs 35 & 36.
	Va 12° 03' E.
	Over gently rolling prairie along the slope of Ravine
6.00	Ravine course S.E.
8.00	Ravine or Dry creek Water in holes course S.E.
30.00	Enter smooth undulating table land gradual North Descent.
40.00	Set a hard-sand stone 16x10x5 ins 11 ins in the ground for 1/4 Sec cor Marked. 1/4 S. on W face dig pits 18x18x12 ins N & S of stone 5 1/2 ft dist & raised mound of earth 1 1/2 ft high 3 1/2 base alongside
63.90	Ravine course S.E.
80.00	Set a hard sand-stone 20x13x14 ins 13 ins in the ground for cor to secs 25. 26. 35 & 36. Marked. 1 Notches on S. & E faces. dig pits 18x18x12 ins in each sec 5 1/2 ft dist and raised mound of earth 2 ft high 4 1/2 ft base alongside
	Land - S 30 chs rolling and broken along the Ravines
	- N 50 chs undulating clay loam 1st & 2nd rate.
	There is a settler in each of the 1/4 secs in 36
	There is a well of good water in the ravine in the S.W corner

---

East on a random line bet secs 25 & 36.
Va 12° 03' E

40.00	Set temporary 1/4 sec cor.
79.96	Intersect the East boundary of the Township at the cor to secs 25. 30. 31. & 36 which is a sandstone 5x10x4 ins above ground firmly set & marked 1 notch on S & 5 notches on N edges with pits 18x18x12 ins in each sec 5 1/2 ft dist & a raised mound of earth 2 ft high 4 1/2 ft base alongside - Thence
	I run

T. 34 N. R. 11 W. 1 IN DESCRIPTION
T 33 N R 12 W
T 34 N R

Subdivisions T 34 N R 11 W Continued

Chains

West on a true line bet secs 25 and 36.
With same Va

Over gently rolling surface in Cornfield

20.00 Leave Cornfield No 5

39.98 Set a hard sandstone 16×8×5 ins 11 ins in the ground for 1/4 sec cor marked 1/4 S on N face dug pits 18×18×12 ins E & W of stone 5 1/2 ft dist and raised mound of earth 1 1/2 ft high 3 1/2 ft base alongside.

79.96 The corner to secs 25.26.35 and 36.

Land gently rolling

Soil dark clay loam 1st rate farm land.

North 0° 1' W bet secs 25 and 26.
Va 12° 03' E

Over smooth prairie. Ascending

40.00 Set a hard sandstone 16×10×4 ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 S on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised mound of earth 1 1/2 ft high 3 1/2 ft base alongside

Descending

77.10 Short ravine course N.E. 6 ft deep

80.00 Set a hard sandstone 16×12×4 ins 11 ins in the ground for corner to secs 23.24.25 and 26 Marked 2 notches on S and E faces dug pits 18×18×12 ins ins each sec 5 1/2 ft dist and raised mound of earth 2 ft high 4 1/2 ft base alongside

Land - S2 Gentle South slope

Soil black clay loam 1st rate farm land.

N2 Gentle North slope. dark clay soil fair. 1st rate farm land.

No timber

Knowing that I will intersect Ft Randall Military Reservation at less than 80 chs

I run

East on a true line bet secs 24 and 25.
Va 12° 03' E.

Over broken ground descending

5.10 Ravine 10 ft deep. Course N. Ascend

7.70 Intersected the Ft Randall Military Reservation

Subdivisions T 34 N R 11 W Continued.

Chains

line 92.27 chs N 51° 35 W from C.C. to fractional secs 25 and 30.

Set a hard sandstone 17×11×4 ins 11 ins in the ground for closing corner to fractional secs 23 and 24. Marked. S 24 on N. S 25 on S. C.C on W and R.E.S on East faces dug 3 pits 24×18×12 ins

One N 51° 35' W

" S 51° 35' E and

" S W at right angles to said reservation line 5 1/2 ft dist and raised mound of earth 2 ft high 4 1/2 ft base alongside

Land broken

Soil 2nd rate

No timber

N 0° 1' West bet secs 23 and 24.
Va 12° 03' E.

Over broken ground.

2.60 Ravine Course N.E.

5.10 Ravine Course E.

6.09 Intersect Ft Randall Military Reservation line 9.84 chs N 51° 35' W from cor to fractional secs 23 and 26.

Set a hard sandstone 24×16×6 ins 18 ins in the ground for closing cor to fractional secs 23 and 24. marked S 24 on E. S 23 on W. R.E.S on N and C.C on S faces. dug 3 pits 24×18×12 ins

One N 51° 35' W

" S 51° 35' E and

" S W at right angles to said Reservation line 5 1/2 ft dist and raised mound of earth 2 ft high 4 1/2 ft base alongside. From which

The center of a Ravine bears N 51° 35' W 30 links dist

A rocky point in bend of ravine bears N 51° 35' W. 4 chs dist

Land broken

Soil clay 2nd rate

There is a ledge of sandstone rock above mentioned on the Reservation line in Sec 23.

No timber

×

T. 34 N. R. 11 W. (In Reserve)

Subdivisions T 34 N R 11 W Continued

Chains The corner to secs 2.3.34 & 35 on the South boundary of the Township is a hard sandstone firmly set and properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 33. N R 11 W.

I set my instrument over the corner & adjusted it to a true meridian by the Solar Apparatus The Magnetic bearing of the Meridian thus found is N 11° 59' W (At 10^30 AM.)

Which corrected by table page 56 gives Mean-declination 12° 03' E.

Thence I run

N 0° 2' W bet secs 34 & 35

Va 11° 59' E.

Over gently rolling prairie

1.80 Head of flat drain course W

12.50 Enter slough course S.W & N.E.

20.00 Leave slough course S.W & N.E.

26.00 Drain course W.

30.50 Drain course W.

40.00 Set a hard sandstone 14×12×4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 S. on W face. dug pits 18×18×12 ins N & S of stone 5 1/2 ft dist and raised mound of earth 1 1/2 ft high 3 1/2 ft base alongside In S edge of drain course S.E. Thence Up drain & at

43.50 Leave drain course S.E. bank 8 ft high

56.00 Same drain course S.W. 3 ft deep.

61.00 Same drain course S.E.

64.00 Same drain course S.W.

80.00 Set a hard sandstone 16×12×4 ins 11 ins in the ground for cor to secs 26.27.34 & 35. Marked One notch on S & 2 notches on E faces dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised mound of earth 2 ft high 4 1/2 ft base alongside

Land gently rolling some broken by ravines

S^2 soil is clay 2nd rate

N^2 land undulating. Clay soil 1st rate

No timber

Subdivisions T 34 N R 11 W Continued

Chains East on a random line bet secs 26 & 35

Va 11° 59' E

40.00 Set temporary 1/4 sec cor.

80.02 Intersect the N & S line 13 links N of the cor to secs 25.26.35 & 36.

Thence I run

N 89° 54' W on a true line bet secs 26 & 35

With same Va

40.01 Set a hard sandstone 14×12×4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 S on N face dug pits 18×18×12 ins E & W of stone 5 1/2 ft dist and raised mound of earth 1 1/2 ft high 3 1/2 ft base alongside

66.50 Ravine course N.W. 2 ft deep

76.40 Ravine course S. 2 ft deep

80.02 The cor to secs 25.26.35 & 36.

Land gently undulating

Soil clay 1st rate farm land.

No timber

At 2^30 P.M. diurnal change has decreased the Va 2'.

N 0° 2' W bet secs 26 & 27

Va 11° 53' E.

Over gently ascending ground.

40.00 Set a hard sandstone 16×12×3 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 S. on W. face dug pits 18×18×12 ins N & S of stone 5 1/2 ft dist and raised mound of earth 1 1/2 ft high 3 1/2 ft base alongside

Over gently descending N. slope

80.00 Set a hard sandstone 16×12×4 ins 11 ins in the ground for cor to secs 22.23.26 & 27. Marked 2 notches on S & E faces dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised mound of earth 2 ft high 4 1/2 ft base alongside

Land S^2 gentle south slope

N^2 gently rolling

Soil Clay loam 1st rate

No timber

T. 34 N. R. 11 W. (IN RESERVE) T. 35 N R 11 T. 33 N R 12 T. 34 N R 12 T. 35 N R 12

Subdivisions T 34 N R 11 W Continued

Chains	
	East on a random line bet secs 23 & 26
	Va 11° 53' E.
40.00	Set temporary 1/4 sec cor
79.98	Intersect the N & S line 25 links N of the cor to secs 23.24.25 & 26.
	Thence I run
	N 89° 49' W on a true line bet secs 23 & 26.
	With same Va
	Over smooth ascending ground.
37.00	Drain 2 ft deep course N.W.
39.99	Set a hard sandstone 16×14×4 ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 S on N. face dug pits 18×18×12 E & W of stone 5½ ft dist & raised mound of earth 1½ ft high 3½ ft base alongside
79.98	The cor to secs 22.23.26 & 27.
	Land gently rolling
	Soil clay loam 1st rate farm land.
	No timber

At 4.00 P.M. diurnal change has increased the Va 2'. Local attraction has increased Va 3'.
N 0° 2' W bet secs 22 & 23.

Va 11° 58' E.

Over gently rolling descending ground.

40.00	Set a hard sandstone 15×12×4 ins 10 ins in the for 1/4 sec cor marked 1/4 S on W face dug pits 18×18×12 N & S of stone 5½ ft dist & raised mound of earth 1½ ft high 3½ ft base alongside
48.10	Ravine course E 8 ft deep
54.00	Enter valley bears E & W.
57.00	Dry creek - Water in holes. Apond of water on line 20 links wide Course S.E.
58.00	Leave valley and ascend a long sloping hill Valley bears E & W.
69.07	Intersect Ft Randall Military Reservation line 102.20 chs N 51° 35' W from closing corner to fractional secs 23 & 24.
	Set a hard sandstone 18×12×3 in 12 ins in the

Subdivisions T 34 N R 11 W Continued

Chains	
	ground for closing cor to fractional secs 22 & 23. Marked -
	C.C. & 1 notch on S.
	S 22 on W.
	S 23 on E.
	R.E.S. on N faces - dug 3 pits 24×18×12 ins
	One N 51° 35' W
	" S 51° 35' E &
	" S.W. at right angles to said Reservation line 5½ ft dist from stone & raised mound of earth 2 ft high 4½ ft base alongside
	Land - gently rolling
	Soil clay 1st rate
	No timber

August 6th 1890

At 6.00 A.M. Aug 8th
I go to the cor to secs 3.4.33 & 34 on the S boundary of the Township which is a hard sandstone firmly set and properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 33 N R 11 W. and adjust my compass to a true meridian by the Solar Apparatus.
The magnetic bearing of the true meridian so determined is N 12° 05' W
I run
N 0° 3' W bet secs 33 & 34.

Va 12° 05' E.

Over gently rolling ground

5.00	Ravine course E. 3 ft deep
27.90	Road bears S.W & N.E.
29.90	Ravine course S.E. 5 ft deep
39.00	Slough course S.E.
40.00	Set a hard sand stone 15×10×4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 S on W face. dug pits 18×18×12 ins N & S of stone 5½ ft dist & raised mound of earth 1½ ft high 3½ ft base alongside
	Over smooth undulating prairie

T. 34 N. R. 11 W. (IN. RESERVE)

Subdivisions T 34 N R 11 W. Continued.

Chains
80.00 Set a hard sandstone 18×8×4 ins 12 ins in the ground for cor to secs 27. 28. 33 & 34. Marked One notch on S and 3 notches on E faces. dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land S² gently rolling soil 2nd rate
N² Undulating Soil clay 1st rate
No timber

East on a random line bet secs 27 & 34.
Va 12° 05' E.
40.00 Set temporary ¼ sec cor
80.04 Intersect the N & S line 10 links North of the cor to secs 26 27. 34 & 35.
Thence I run
N 89° 56' W on a true line bet secs 27 & 34.
With same Va
Over gently rolling ground.
40.02 Set a hard sandstone 16×10×4 ins 11 ins in the ground for ¼ sec cor. Marked ¼ S on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base alongside
57.35 Drain course S.W.
62.55 Road bears N & S.
74.55 Ravine course S. 5 ft deep
80.04 The cor to secs 27. 28. 33. & 34.
Land gently rolling - soil clay 1st rate
There is a settler in S.W.¼ sec 27. near the ¼ sec cor. has a sod house and a good well of Water about 8 ft deep in the ravine West of house

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N 0° 3' W bet secs 27 & 28.
Va 12° 05' E.
Over gently rolling ground. gentle descent.
17.00 Enter slough course S.E.
20.00 Leave slough course S.E.
23.40 Drain course S.W.

Subdivisions T 34 N R 11 W Continued

Chains
40.00 Set a hard sandstone 14×10×4 ins 9 in the ground for ¼ sec cor Marked ¼ S on W face. dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
Over smooth prairie
80.00 Set a hard sandstone 22×6×4 ins 14 ins in the ground for cor to secs 21. 22. 27 & 28 Marked 2 notches on the S and 3 on E faces. dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ base alongside
Land gently rolling
Soil clay 1st rate farm land
No timber

At 8.00 A.M. Diurnal change has increased the Va 2'
East on a random line bet secs 22 & 27
Va 12° 07' E.
40.00 Set temporary ¼ sec cor.
80.00 Intersect the N & S. line 8 links North of the cor to secs 22. 23. 26 & 27.
Thence I run
N 89° 57' W on a true line bet 22 & 27.
With same Va
Over undulating descending ground.
40.00 Set a hard sand-stone 16×10×5 ins 11 ins in the ground for ¼ sec cor. Marked ¼ S on N face. dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base alongside
80.00 The cor to secs 21. 22. 27 & 28.
Land undulating
Soil clay 1st rate
No timber
There a three settlers in sec 27.

N 0° 3' W bet secs 21 & 22.
Va 12° 07' E

T. 34 N. R. 11 W. (IN. RESERVE) 35 R 11 T. 33 R. 12 T. 34 R. 12 T. 35 R. 12

Subdivisions T 34 N R 11 W Continued

Chains

Over Ascending ground.

30.00 Divide bears S.E. & N.W. And Descend

40.00 Set a hard sandstone 14×10×5 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on W face. dug pits 18×18×12 ins N & S of stone and raised a mound of earth 1½ ft high 3½ ft base alongside

Descend over rolling ground.

80.00 Set a hard sandstone 16×12×4 ins 11 ins in the ground for cor to secs 15.16 21. & 22. Marked. 3 notches on S. & E. faces dug pits 18×18×12 ins in each sec 5½ ft dist & raised a mound of earth 2 ft high 4½ ft base alongside

Land rolling

Soil clay 1st rate

No timber

Knowing that I will intersect Reservation line at less than 80 chs

I run

East on a true line bet secs 15 & 22

Va 12° 07' E.

5.50 Over rolling ground; A Dry and Water in holes course S.E.

15.10 Drain course S.E. 10 ft deep

38.10 Enter valley bears N.W. & S.E.

40.00 Set a hard sandstone 15×10×4 ins 10 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

45.00 Leave valley bears N.W. & S.E.

52.50 Drain course S.E. 8 ft deep

66.35 Intersect Ft Randall Military Reservation 17.38 chs N 51° 35' W from "C.C." to fractional secs 22 & 23.

Set a hard sand-stone 24×14×6 ins in the ground marked C.C. on W. & R.E.S. on E edges. S 15 on N & S 22 on S faces. dug 3 pits 24×18×12 ins 1 N 51° 35' W - 1 S 51° 35' E. & 1 S.W. at right angles to said Reservation line 5½ ft dist from stone. & raised mound of earth 2 ft high 4½ ft base alongside

Land rolling
No timber
Soil Clay 2nd rate

Subdivisions T 34 N R 11 W Continued

Chains

At 10 30 A.M. Diurnal change has decreased the Va 5'. Local attraction has increased Va 3'.

N 0° 3' W bet secs 15 & 10

Va 12° 05' E.

Over rolling ground.

6.00 Silver Creek Water in holes Course S.E.

40.00 Set a hard sand stone 14×12×5 ins 9 in in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base alongside

53.50 Intersect the Ft Randall Military Reservation 84.60 chs N 51° 35' W from the closing corner to fractional secs 15 & 22.

Set a hard sand stone 16×12×4 ins 9 ins in the ground for closing cor to fractional secs 15 & 16. Marked - S 15 on E - S 16 on W. - C C & 2 notches on S - & R E S on N faces. dug 3 pits 24×18×12 ins - One N 51° 35' W. One S 51° 35' E. & one S.W. at right angles to said Reservation line & raised a mound of earth 2 ft high 4½ ft base alongside

Land rolling
Clay soil 1st rate farm land
No timber

At the cor to secs 4. 5. 32 & 33. at 12 M. I observe latitude which I find to be 42° 53' N.

At 3 00 P.M. Aug 8th I set my compass over the center of the cor to secs 4. 5. 32 & 33. on the South boundary of the Township which is a hard sand-stone firmly set & properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 33 N R 11 W. & adjust it by the Solar Apparatus to a true Meridian.

The magnetic bearing of the true meridian is N 12° 01' W & the Va is 12° 01' E which corrected by table on page 55 of the manual gives for

T. 34 N. R. 11 W. (IN RESERVE) Bor. 11 R. 11 W. T. 33 N. R. 11 W. T. 35 N. R. 11 W.

Subdivisions T34 N R11 W Continued

Chains Mean declination 12°06' E.
Thence I run
N 0° 3½' W bet secs 32 & 33.
Va 12° 01' E.
Over level table land.
30.00 Descend gradual slope
40.00 Set a hard flinty sandstone 14x7x6 ins 9 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18x18x12 ins N & S of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
80.00 Set a hard flinty sandstone 24x10x3 ins 18 ins in the ground for cor to secs 28.29.32 & 33. Marked 1 notch on S & 4 notches on E face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land level & rolling
Soil clay 1st rate
No timber

East on a random line bet secs 28 & 33.
Va 12° 01' E.
40.00 Set temporary 1/4 sec cor.
79.86 Intersect the N & S line at the cor to secs 27.28.33. & 34
Thence I run
W on a true line bet secs 28 & 33.
With same Va
Over level surface
8.85 Drain course S E
39.93 Set a hard flinty sandstone 14x10x4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
Over rolling prairie
41.35 Drain course S E 2 ft deep
79.86 The cor to secs 27.28.34 & 33.
Land level and gently rolling
Soil clay 1st rate. No timber

Subdivisions T34 N R11 W Continued

Chains N 0° 3½ W bet secs 28 & 29.
Va 12° 01 E.
Over gently descending prairie
22.40 Ravine course N E 5 ft deep
38.20 Ravine course E 5 ft deep
40.00 Set a hard flinty sandstone 15x8x5 ins 10 ins in the ground for 1/4 sec cor. Marked 1/4 on W face. dug pits 18x18x12 ins N & S of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
Ascend gently
80.00 Set a hard flinty sandstone 20x12x4 ins 15 ins in the ground for cor to secs 20.21.28 & 29. Marked - 2 notches on the S. & 4 on E faces dug pits 18x18x12 ins in each sec 5½ ft dist & raised mound of earth 2 ft high 4½ ft base alongside
Land undulating
Soil clay loam 1st rate
No timber

At 2 30 PM. Diurnal change has increased the Va 3'.
Local attraction has increased the Va 2'
East on a random line bet secs 21 & 28.
Va 12° 06. E.
40.00 Set temporary 1/4 sec cor
79.88 Intersect the N & S line 3 links N of the cor to secs 21.22.27. & 28.
Thence I run
N 84° 59' W on a true line bet secs 21 & 28.
With same Va
Over gently rolling ground
3.80 Shallow Drain 2 ft deep course S.E.
38.90 Shallow Drain course S.
39.94 Set a flinty sand stone 16x10x4 ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5½ ft dist & raised mound of earth 1½ ft high 3½ ft base alongside

T. 34 N. R. 11 W. (IN RESERVE) Boh M 1938 R 1938 M 3 R 1 W

Subdivisions T 34 N R 11 W Continued

Chains	
58.80	Drain course S. 2 ft deep.
79.88	The cor to secs 20. 21. 28. & 29.
	Land gently undulating
	Soil clay 1st rate farm land
	There are three settlers in sec 27. In N.W¼ is a frame house, sod barn and a good well 15 ft deep
	Aug 8th 1890

At 6.00 AM. Aug 9th from the corner to secs 20. 21. 28. & 29. I take a backsight to the S. bet secs 28 & 29.
The magnetic bearing of the line is S 12° 10' E. & the Va is 12° 10' E which corrected by table on page 55 of the manual gives for Mean declination 12° 06' E
N 5° 3½' W bet secs 20 & 21
Va 12° 10' E.

Chains	
	Ascending
40.00	Set a hard sandstone 16×9×5 ins 11 ins in the ground for 1/4 sec cor - Marked. 1/4 on W face dug pits 18×18×13 ins N & S of stone 5½ ft dist & raised mound of earth 1½ ft 3½ ft base alongside
56.90	Wagon road bears N E & S W.
58.00	Top of divide bears N W & S. E.
	Descending
80.00	Set a sand stone 20×10×4 ins 13 ins in the ground for cor to secs 16 17. 20 & 21. Marked 3 notches on S edge & 4 notches on E face dug pits 18×18×13 ins in each sec 5½ ft dist & raised mound of earth 2 ft high 4½ ft base alongside
	Land - S2 south slope Soil clay 1st rate
	Rest 20 chs. North slope & rolling
	Soil clay 2nd rate
	N 20 chs clay 1st rate.
	No timber

Sub divisions T 34 N R 11 W Continued

Chains	
	East on a random line bet secs 16 & 21.
	Va 12° 10' E
40.00	Set temporary 1/4 sec cor.
79.92	I intersect the N & S line 16 links S of the cor to secs 15. 16. 21. & 22.
	Thence I run
	S 89° 53' W on a true line bet secs 16 & 21.
	With same Va
	Over rolling ground
12.10	Ravine course N
39.96	Set a hard sandstone 15×10×4 ins - 10 ins in the ground for 1/4 sec cor - Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
66.07	Wagon Road bears N & S.
79.92	The cor to secs 16. 17. 20. & 21.
	Land rolling
	Soil clay 1st rate.
	No timber

At 7.30 AM. diurnal change has increased the Va 2'.
N 0° 3½' W bet secs 16 & 17.
Va 12° 12' E.

Chains	
	Over smooth ground gentle descent
10.20	Drain 2 ft deep course E.
43.00	Set a hard sandstone 17×9×4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins N & S of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
43.15	Dry branch of Silver creek course E.
80.00	Set a hard sandstone 17×13×3 ins 11 ins in the ground for cor to secs 8. 9. 16 & 17. Marked mk 4 notches on S edge & 4 notches on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
	Land gently rolling - Soil Clay loam 1st rate
	No timber

T. 34 N. R. 11 W. (IN RESERVE)

Subdivisions T 34 N R 11 W Continued

Chains

At 8.15 AM. Local attraction has increased Va 3'
Knowing that the line bet secs 9 & 16 will intersect the Ft Randall Military Reservation line at less than 80. chs
I run
East on a true line bet secs 9 & 16
Va 12° 15' E.

Over gently rolling ground.
34.00 Ravine course S.E
36.30 Old Road bears N & S.
40.00 Set a hard sandstone 16×14×3 ins 11 in in the ground for 1/4 sec cor Marked 1/4 on N face: dug pits 18×18×12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
45.00 Ravine with tall grass course S.
45.52 On East side of ravine Intersect the Ft Randall Military Reservation 43.95 chs N 51° 35' W from the closing cor to fractional secs 15 & 16.
Set a hard sand stone 18×16×12 ins - 12 ins in the ground for closing to fractional secs 9 & 16.
Marked S9 on N - S16 on S face C.C. on W. & R.E.S. on E edges. dug 3 pits 24×18×12 ins - 1 N 51° 35' W - 1 S 51° 35' E & 1 S W at right angles to said Reservation line 5 1/2 ft dist & raised mound of earth 2 ft high 4 1/2 ft base alongside
Land gently rolling
Soil dark clay loam
No timber

At 9.00 AM. diurnal change has diminished the Va 2'.
N 0° 3 1/2' W bet secs 8 & 9.
Va 12° 13' E.
Over gently rolling ground
36.09 Intersected the Ft Randall Military Reservation 58.00 chs N 51° 35' W from the C.C. to fractional secs 9 & 16.
Set a hard sand-stone 18×12×4 ins - 12 ins in the ground Marked. S9 on E - S8 on W faces

Subdivisions T 34 N R 11 W Continued

Chains

C.C. 5 notches on S. & R.E.S. on N edges dug 3 pits - 1 N 51° 35' W - 1 S 51° 35' E & 1 S W at right angles to said Reservation line 5 1/2 ft dist & raised mound of earth 2 ft high 4 1/2 ft base alongside
Land gently rolling
Soil clay. 1st rate black loam
No timber

At 12.00 M I observe latitude and find it to be N 42° 52' + at the cor to secs 5.6 31. & 32 on the S boundary of the Township.
At 2.00 P.M. I set my compass over the above described corner which is a hard sandstone properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 11 W. and adjust it to a true meridian by the Solar Apparatus.
The magnetic bearing of the true Meridian is N 12° 00' W (at 2 P.M.) which corrected by Table on page 55 of printed manual gives for local mean declination 12° 06' E.
Thence I run
N 0° 4 1/2' W bet secs 31 & 32.
Va 12° 00' E.

.50 Ascend about 8 ft thence over rolling ascending ground.
6.40 Ravine course S.W. 8 ft deep
9.50 Same ravine course S.E.
37.25 Drain course S.E. 5 ft deep
40.00 Set a sandstone 15×7×5 ins - 10 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5 1/2 ft dist & raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
80.00 Set a sandstone 20×12×3 ins 13 ins in the ground for cor to secs 29 30 31. & 32. Marked 1 notch on S & 5 on E faces: dug pits 18×18×12 ins in each sec 5 1/2 ft dist & raised mound of earth 2 ft high 4 1/2 ft base alongside
Land rolling - Soil clay 1st & 2nd rate. No timber

T. 34 N. R. 11 W. (IN. RESERVE)

Subdivisions T 34 N R 11 W. Continued

Chains	
	East on a random bet secs 29 & 32
	Va 12° 00' E.
40.00	Set temporary 1/4 sec cor.
80.06	Intersect the N & S line at the cor to secs 28.29 32 & 33.
	Thence S run
	W on a true line bet secs 29 & 32.
	With same Va
5.05	Ravine 5 ft deep S
6.05	Same ravine course N E.
23.45	Ravine course S. 6 ft deep
40.03	Set a hard sandstone 13×12×5 ins 8 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base alongside
62.55	Drain course S E. 4 ft deep
	Ascend gradual slope
80.06	The corner to secs 29.30.31 & 32.
	Land gently rolling
	Soil clay loam 1st rate
	No timber
	There is a settler on N W 1/4 sec 32 & one in S E 1/4

	West on a random line bet secs 30 & 31
	Va 12° 00' E.
40.00	Set temporary 1/4 sec cor.
79.35	Intersect the W boundary of the Township 3 links S of the cor to secs 25 & 30. 31. & 36 which is a sandstone firmly set and properly marked as witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 11 W.
	Thence I run
	S 89° 59' E on a true line bet secs 30 & 31.
	With same Va
	Valley ascending to
140	Leave valley to ascend hill bears N & S.
1000	Enter gently rolling tableland 100 ft higher than valley.
1235	Drain course N W.

Subdivisions T 34 N R 11 W Continued

Chains	
39.35	Set a sandstone 15×15×3 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
49.25	Wagon Road bears N E & S W.
70.00	Descend gradual slope to
79.35	The cor to secs 29.30.31. & 32.
	Land - rolling table land.
	Soil W 10 chs broken 2nd rate
	balance clay soil 1st rate
	There is a settler in N. E. sec 31.

	At 4.30 P.M. diurnal change has increased the Va 3'.
	Local attraction has increased the Va 3'.
	No. 4 W bet secs 29 & 30.
	Va 12° 06' E.
	Over rolling prairie
40.00	Set a sandstone 16×10×4 ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
41.15	Wagon Road bears N E & S W.
43.00	Shallow Drain course S E. 2 ft deep
65.50	Shallow Drain course S E.
80.00	Set a sandstone 18×10×4 ins 12 ins in the ground for cor to secs 19.20.29 & 30. Marked with 2 notches on the S & 5 on the E faces dug pits 18×18×12 ins in each Sec 5½ ft dist & raised a mound of earth 2 ft high 4½ ft base alongside
	Land gently rolling
	Soil clay loam 1st rate

	At 5.25 P.M. diurnal change has increased the Va 2'.
	East on a random line bet secs 20 & 29
	Va 12° 08' E.

T. 34 N. R. 11 W. (IN. RESERVE)
T. 33 N. R. 12
T. 34 N. R. 12
T. 35 N.

Subdivisions T 34 N R 11 W. Continued

Chains	
40.00	Set temporary 1/4 sec cor.
80.10	Intersect the N & S. line 2 links North of the cor to secs 21.22.27 & 28
	Thence I run
	N 89° 59' W on a true line bet secs 20. & 29.
	With same Va
4.30	Ravine course S. 5 ft dep
28.10	Drain 2 ft dep course S.E
30.60	Wagon road bears N.E & S.W.
40.05	Set a sandstone 17×17×4 ins - 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
80.10	The cor to secs 19. 20. 29. & 30
	Land gently rolling
	Soil clay 1st rate
	No timber
	There is a settler on S 29.
	Aug 9th 1890.

At 8° AM Aug 10th diurnal change has increased the Va 5'.

West on a random line bet secs 19 & 30

Va 12° 11' E.

40.00	Set temporary 1/4 sec cor
79.32	Intersect the West boundary of the township at the cor to secs 19.24. 25. & 30. which is a sandstone as heretofore described in notes of surveys of exterior boundaries of T 34 N R 11 W
	Thence I run
	East on a true line bet secs 19 & 30
	With same Va
	Over valley land.
3.30	Leave valley and ascend bluff 60 ft high bears N & S. Thence over table land
39.32	Set a hard sandstone 16×10×5 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside

Subdivisions T 34 N R 11 W Continued

Chains	
76.40	Drain 2 ft dep course S.E.
79.32	The cor to secs 19. 20. 29. & 30
	Land E 70 chs gently rolling table land.
	soil clay 1st rate
	W 10 chs bluffs & valley 1st & 3rd rate
	No timber

N 8° 45' W bet secs 19 & 20

Va 12° 11' E

	Over rolling ascending ground
11.00	Shallow drain course S.W.
18.40	Same drain course S.E.
30.00	Top of hill. Thence
	Over rolling tableland
37.70	Ravine course N.W.
40.00	Set a sandstone 16×12×4 ins. 11 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
46.70	Ravine 15 ft dep course N.W.
52.70	Ravine 15 ft dep course N.W.
65.00	Ravine 20 ft dep - S.W.
80.00	Set a hard sandstone 22×12×3 ins 17 ins in the ground for cor to secs 17.18.19. & 20
	Marked - 3 notches on S & 5 on the E faces dug pits 18×18×12 ins in each sec 5½ ft dist & raised a mound of earth 2 ft high 4½ ft base alongside
	Land S½ rolling clay soil 1st rate
	N½ rolling & broken 2nd rate
	No timber

At 7.30 AM. diurnal change has increased the Va 3'.

Local attraction has increased the Va 2'.

East on a random line bet secs 17 & 20

Va 12° 16' E.

40.00	Set temporary 1/4 sec cor.

T. 34 N. R. 11 W. (IN RESERVE)

Subdivisions T 34 N R 11 W Continued

Chains	
80.06	Intersect the N & S line 2 links North of the cor to secs 16.17.20 & 21.
	Thence I run
	N 89° 59' W on a true line bet secs 17 & 20.
	With same Va
	Over rolling ground
34.15	Ravine course N W 4 ft deep
35.10	Ravine course S W 4 ft deep
40.03	Set a sandstone 16×10×4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5 1/2 ft dist & raised a mound of earth 1 1/2 ft high 4 1/2 ft base alongside
40.50	Drain course S 8 ft deep
46.45	Drain course S.E. 5 ft deep Thence
	Over level table land
80.06	The cor to secs 17.18.19 & 20.
	Land rolling
	E 45 chs Soil 2nd rate
	W 35 " Level clay land 1st rate
	No timber
	There is a settler in the S W 1/4 sec 20.

West on a random line bet secs 18 & 19

Va 12° 16' E.

40.00	Set temporary 1/4 sec cor.
79.20	Intersect the West boundary of the Township 7 links North of the cor to secs 13.18.19 & 24. which is a sandstone firmly set & properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N. R 11 W.
	Thence I run
	N 89° 59' E on a true line bet secs 18 & 19
	With same Va
	Over undulating foot hills
3.40	A pond
11.00	Leave foot hills & Enter valley bears N.E. & S.W.
11.20	Slough course S W.
17.80	Leave valley & Ascend hills. bears N & S.

Subdivisions T 34 N R 11 W Continued

Chains	
20.15	Drain course N W
31.80	Gulch course N W
34.20	Set a hard sandstone 16×8×4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
39.70	Ravine course N W. 10 ft lower than table land
45.00	Enter smooth gently rolling table land
79.20	The cor to secs 17.18.19 & 20.
	Land - W 45 chs broken clay soil 2nd rate
	Table land is clay soil 1st rate
	No timber

At 9 30 AM. local attraction has increased the Va 2

N 0° 45' W bet secs 17 & 18.

Va 12° 18' E.

	Over gently rolling table land
34.50	Drain course N W.
40.00	Set a sandstone 15×10×4 ins - 10 ins in the ground for 1/4 sec cor Marked 1/4 W. face dug pits 18×18×12 N & S of stone 5 2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
40.80	Ravine course S W.
79.10	Short ravine course N W.
80.00	Set a hard sandstone 24 x 20 x 3 ins 15 ins in the ground for cor to secs 7.8. 17 & 18. Marked 4 notches on S Edge & 5 notches on E face mound of flagstone 6 ins high around stone & raised a mound of stone 2 ft high 4 1/2 ft base alongside bor stands at the top of gentle slope at edge of the smooth prairie where it is stony & gravelly - Pits impracticable
	Land rolling
	Soil clay & sandy 2nd rate
	No timber

At 10 20 AM diurnal change has decreased the Va 5.

East on a random line bet secs 8 & 17.

T. 34 N. R 11 W. (IN RESERVE)
T 35 R 11
T 33 R 12
T 34 R 12
T 35 R 12

Subdivision T 34 N R 11 W Continued

Va 12° 13' E.

Chains

40.00 Set temporary 1/4 sec cor.

80.16 Intersect the N & S line 2 links South of the cor to secs 8 9 16 & 17.

Thence I run

S 89° 58' W on a true line bet secs 8 & 17.

With same Va

Over undulating prairie

35.00 Begin ascending gradual sloping divide bears N W & S E

40.08 Set a hard sandstone 15×10×4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside

65.00 Leave divide & enter smooth prairie bears N E & S W. Thence

Gentle descent to

80.16 The cor to secs 7 8 17 & 18.

Land. Undulating & rolling

E 35 chs & W 15 chs smooth clay land 1st rate

balance is high divide rolling sandy & clay 2nd rate

No timber

There is a settler in the S W cor of S E 1/4 of Sec 17.

At 1° P.M. diurnal change has diminished the Va 6' West on a random line bet secs 7 & 18.

Va 12° 07' E

40.00 Set temporary 1/4 sec cor.

79.08 Intersect the West boundary of the township at the cor to secs 7 12 13 & 18. which is a sandstone firmly set properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 11 W.

Thence I run

East on a true line bet secs 7 & 18

With same Va

Over valley land

1.20 Dry creek ("Storm") Water in holes on line course S W.

2.00 Leave valley & enter ascending ground bears N & S.

Sub divisions T 34 N R 11 W Continued

Chains

3.75 Slough small pond of water on line course S.

12.05 Same slough course N W & ascend hills

15.80 Ravine course S E.

20.45 Ravine course S

37.10 Gulch course N W.

39.08 Set a hard sandstone 14×12×4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist & raised mound of earth 1½ ft high 3½ ft base alongside

62.25 Enter Ravine course from the line S W.

70.00 Leave same course to the line S W.

Thence along South bank

77.88 Ravine course N W.

79.08 The cor to secs 7 8 17 & 18.

Land rough and broken along the line

Soil clay 3rd rate farm line

Grass - there is tall grass in the ravines in N E 1/4 & on W 10 chs suitable for hay.

The ravine at 63.75 chs gets to a deep canyon S of the 1/4 sec cor & there are strong indications of springs along the bluffs but well water can can be gotten at a few ft from surface

Along the south bank of this ravine in N E 1/4 are found fine sandstone in irregular slabs of a hard flinty nature that it is almost impossible to cut or break them in any regular shape

---

N 0° 40' W bet secs 7 & 8.

Va 12° 07' E.

Over gently rolling surface

1.20 Ravine 3 ft deep course W.

40.00 Set a hard sandstone 12×8×5 ins 8 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

63.70 Ravine course W.

80.00 Set a hard sandstone 16×12×3 ins - 11 ins in the ground for cor to secs 5 6 7 & 8. Marked -

T. 34 N. R. 11 W. (IN RESERVE)

Subdivisions T34 N R11 W Continued

Chains 5 notches on S edge and 5 on E faces dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land gently rolling
Clay soil 1st rate farm land
No timber

At 3.00 P.M. diurnal change has increased the Va 3'
Local attraction has increased the Va 2'
Knowing that the line bet secs 5 and 8 will intersect the Ft Randall Military Reservation line at less than 80 chs
I run
East on a true line bet secs 5 and 8
Va 12° 12' E.
Over gently rolling surface
4.00 Ravine course S.
24.72 Intersect the Ft Randall Military Reservation line 70.77 chs N 51° 35' W from the closing corner to fractional secs 8 and 9.
Set a hard sand stone 18×12×5 ins - 12 ins in the ground Marked /
S 5 on N
S 8 on S
C.C. on W. and
R.E.S on E faces dug 3 pits 18×18×12 ins
Due N 51° 35' W
- S 51° 35' E and
- SW at right angles to said Reservation line 5½ ft dist and raised a mound of earth 2 ft hig 4½ ft base alongside
Land gently rolling.
Soil clay 1st rate
No timber

West on a random line bet secs 6 and 7
Va 12° 12' E.
40.00 Set temporary 1/4 sec cor.
78.90 Intersect the West boundary of the township

Subdivision T34 N R11 W. Continued

Chains 3 links S of the cor to secs 1.6.7 and 12 which is a sand stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N R11 W.
Thence I run
S 89.59' E on a true line bet secs 6 and 7.
With same Va
Over gently rolling table land
20.80 Ravine course S.W.
29.45 Ravine course S about 10 ft deep
38.90 Set a sandstone 18×14×4 ins 12 ins in the ground for ¼ sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 2 ft high 3½ ft base alongside
48.30 Ravine course S. 10 ft deep
57.65 Ravine 10 ft deep course S.
78.90 The cor to secs 5.6.7 and 8.
Land rolling and broken good farm land between of the ravines
Soil clay 1st rate
There is a settler in W bank of ravine at 30.60 chs in S.E. ¼ S.E. has a sod house and a fine spring of water and a good well.

At 5.00 P.M. diurnal change has increased the Va 2
N 0° 4½' W bet secs 5 and 6.
Va 12° 14' E.
Over gently rolling surface
19.60 Intersect the Ft Randall Military Reservation 31.56 chs N 51° 35' W from the closing corner to fractional secs 5 and 8. and 97.11 chs S 51° 35' E from the C.C. to fractional secs 6 and 31 Townships 34 and 35 on the North boundary
Set a hard flinty sandstone 16×14×4 ins 11 ins in the ground - Marked
C.C. and 6 notches on S. and
R.E.S on North edges
S 5 on East and
S 6 on West faces dug 3 pits 18×18×12 ins -
Due N 51° 35' W - 1 S 51° 35' E and 1 SW. at right

T.34 N. R.11 W. (IN. RESERVE)

Subdivisions T34 R11W Continued

Chains Angles to said reservation line 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land gently rolling
Soil Clay 1st rate
No timber

Aug 10th 1890

General Description

This as a good Township. It lies on high table land of gently rolling prairie.
A rolling divide begins in Sec 8 and bears Southeasterly to the N. E. cor of sec 36.
The Water flows south to Ponca Creek and North to Silver Creek from this water shed
The Soil in general is first and second rate farmland and is all tillable excepting along the ravines.
These however will afford excellent pasturage and hay.
There is but very little sandy land in the Tp
Excepting a few scattering trees there is no timber
In sec 18 in N.E.¼ along South bank of ravine and near the West boundary of the sec at ¼ sec cor are found great quantities of hard flinty sandstone lying on and near the surface. in slabs of varying sizes and generally from 2 to 4 and 5 ins in thickness.
The sides exposed to the atmosphere are very hard rendering it almost impossible to Mark with our chisels without defacing the stone or breaking it.
The stone for corners in this township were obtained here and along the North bluff of Silver Creek in the Reservation North of fractional sec 25.

T.34 N. R.11 W. (IN. RESERVE)
T.35 R.11
T.33 R.12
T.34 R.12
T.35 R.12

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, in ....., showing the respective capacities in which they acted:
.....
.....
.....
.....
.....
.....
.....
.....

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....

Oaths of Assistants see page 190 Vol 758.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....
.....

6—151

T.34 N. R.11 W. (IN. RESERVE)
T.33 R.12
T.31 R.12
T.35 R.12

Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the ~~U. S. Surveyor General for~~ General Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Sub-divisional lines in Fractional Township 34 North Range 11 West of the 6th Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 8th day of April, 1891.

C. E. Forbes
Clerk Dist. Court

Approval.

Tau. ~~M.M.R.~~

Office of the ~~U. S. Surveyor General~~ Commissioner, Gen'l Land Office
Washington D.C. June 30, 1891.

The foregoing field notes of the survey of Subdivisional line in fractional T. 34 N. R. 11 W. of the 6th Principal Meridian, State of Nebraska

executed by U. S. Surveyors Nicholas J. Paul and Robert Harvey under ~~his~~ their Contract No. —, dated May 26th, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

J. H. Carter
Commissioner, Gen'l Land Office
Ex Officio Surveyor General.
~~U. S. Surveyor General.~~

~~I certify~~ that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

6—151

U. S. Surveyor General.

Received with letter of R. B. Hughes, Surveyor General, So. Dakota dated Feb. 8 - 1897

(4—679.)

Book M.

FIELD NOTES

OF THE SURVEY OF

the Subdivision lines of fractional township No 34 North of Range No. 11 West, (within the abandoned Fort Randall Military Reservation)

Of the Sixth Principal Meridian,

Nebraska,

AS SURVEYED BY

Charles H. Bates, U. S. Deputy Surveyor,

Under his Contract No. 106, dated March 28th 1895

Survey commenced August 13th, 1895

Survey completed August 15th, 1895

T. 34 N. R. 11 W. (IN RESERVE)

T. 35 R. 11

T. 33 R. 12

T. 34 R. 12

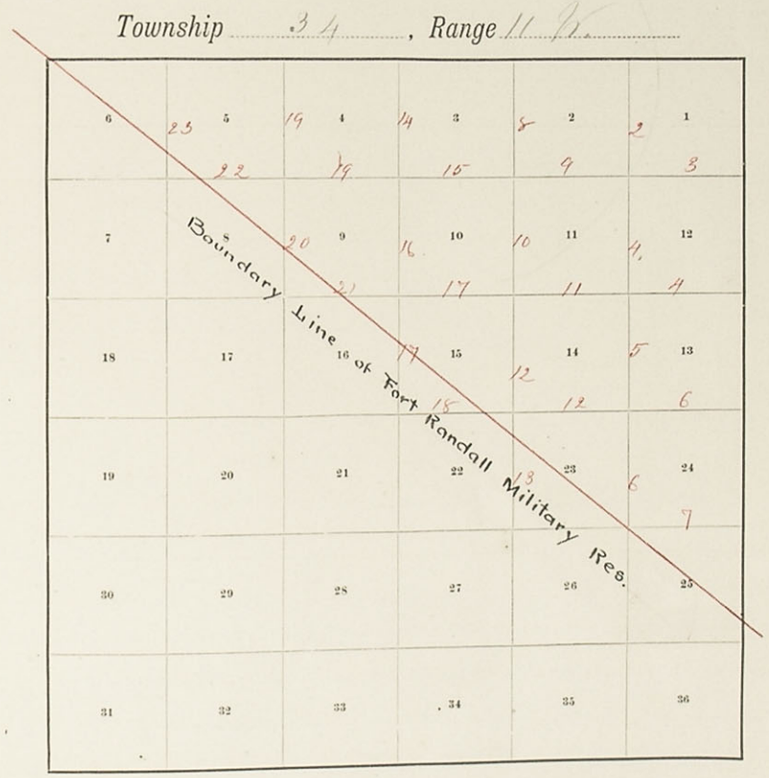
T. 35 R. 12

Names and Duties of Assistants.

Tim Burns	Chainman
E.W. Heusdale	Chainman
A.M. Fox	Moundman
E.R. Cook	Moundman
C.H. Armstrong	Moundman
H.M. Finotti	Moundman
C. Wright	Flagman & Moundman.

INDEX DIAGRAM.

Township 34, Range 11 W.



Meanders Page

Preliminary Oaths of Assistants.

We, ...

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For preliminary oaths of assistants see those with field Notes of Tp. No 34 N. Rg No. 10 West of the 6th principal Meridian surveyed under this same Contract and Contained in Book lettered "L"

....., Chainman.

....., Chainman.

....., Chainman.

....., Chainman

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., Axeman.

....., Axeman.

.....

.....

6—151

Subdivision of T. 34 N., R. 11 W.

1

Survey commenced Aug. 13th. 1895., and executed with a Burts improved solar compass No. 4834. made by Young and Sons, Phila Pa.

The horizontal limb is provided with two opposite verniers reading to single minutes which is also the least count of the latitude and declination verniers.

The instrument was examined, tested on the meridian at Huron. S. Dak., found correct, and was approved by the surveyor general of South Dakota, May 11th, 1895.

In order to test the solar apparatus by comparing the results of p.m. and a.m. observations on the sun with a true meridian, I proceed as follows.

Aug. 12th. I set off 42°56' on the lat. arc, and 14°52',5 N. on the decl. arc, and at 5h 25m p.m. l.m.t. test the adjustment of my solar on the meridian I established Aug. 2d. from Polaris.⊕ near the cor. of Secs. 7.12.13 and 18 on the E. bdy. of the Tp., I find it gives the same meridian and adjustments correct.

Aug. 13th. I set off 42°56' on the lat. arc, and 14° 42',5 N. on the decl. arc. and at 6h 35m a.m. l.m.t. again test my solar on the same meridian, and find it gives the same meridian and adjustments correct.

The magnetic bearing of the true meridian at 6h 35m a.m. is N. 12°03' W. the angle thus determined reduced by the table, page 100. gives the mean mag. decl. 11°57' E.

⊕ Meridian of record on sheet #1 of the Field-notes of the Fort Randall Military reservation boundary

T.35 R.11

T.33 R.12

T.34 R.12

T.35 R.12

2

Subdivision of T. 34 N., R. 11 W.

Chains	
	In accordance with special instructions, I commence at the cor. of secs. 1. 2. 35 and 36. on the N. bdy. of the Tp., heretofore described.
	Thence I run
	S. 0° 01' E. bet. secs. 1 and 2.
	Over mountainous land. descending to drain.
0.45	Wagon road, bears N.E. and S.W.
10.45	Drain. 25 lks. wide. course N.E.
	Nine mile spring is located in this drain 9.00 chs. S.W. of this point.
20.65	Enter drain, 30 lks. wide. course to the N.E.
	Follow up same to
26.00	Leave same. course from the S.W.
40.00	Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base. 1½ ft. high over deposit.
	In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face.
47.00	Top of hills. bears E. and W. leave broken country. thence over rolling prairie.
56.20	Enter field. bears E. and W.
58.61	Leave field. bears E. and W.
77.70	Wagon road. bears E. and W.
78.31	Wire fence. bears E. and W.
80.00	Set a sandstone 15×14×3 ins. 10 ins. in the ground for cor. of secs. 1. 2. 11 and 12. marked 5 notches on the S. and 1 notch on E. edges. dig pits 20×20×12 ins. in each sec. 5½ ft. dist and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
	Land, mountainous and rolling
	Soil, 2d. and 3d. rate.
	Mountainous land 47.00 chs.
	Gross post office bears N. 61° W.

3

Subdivision of T. 34 N. R. 11 W.

Chains	
	East on a random line bet. secs. 1 and 12.
40.00	Set temp. 1/4 sec. cor.
79.98	Intersect E. bdy. of the Tp 19 lks. S. of cor. of secs. 1. 6. 7 and 12. heretofore described
	Thence I run
	S. 89° 52' W. on a true line bet. secs. 1 and 12.
	Descending to drain
4.20	Drain, 15 lks. wide. course N.E. ascend 50 ft.
7.00	Top of hills. bears N. and S. thence over rolling land.
10.45	Wagon road. bears N. and S.
10.59	Enter field near N.E. cor. thence along N. edge of same.
16.92	Leave field at N.W. cor.
35.00	S.E. cor. of field. bears N. 2.00 chs. dist.
39.99	Set a sandstone 16×10×8 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face.; dig pits 24×24×12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base. 1½ ft. high N. of cor.
	House of J Sinclair. bears N. 47° W. 8.00 chs. dist
	House of Foster. bears S 16° W. 15. chs. dist.
41.30	Wagon road, bears S.E. and N.W. to road E. and W. along line.
	S.W. cor. of field. bears N. 1.25 chs. dist.
42.10	Drain, 10 lks. wide. course S.E.
47.41	Enter field. bears N. & S. 1.00 ch. S. of N. end. thence along N. edge of same.
71.55	Leave field. bears N. and S. 1.00 ch. S. of N.W. cor.
76.50	Wagon road. bears N. and S.
76.73	Wire fence. bears N. and S.
79.98	The cor. of secs. 1. 2. 11 and 12.
	Land rolling.
	Soil. sandy loam, 2d. rate.

T.35 R.11 | T.33 R.12 | T.34 R.12 | T.35 R.12

4 Subdivision of T. 34 N., R. 11 W.

Chains	
	S. 0°01' E. bet. Secs. 11 and 12
	Over rolling prairie.
23.23	Wire fence, bears E. and W.
29.05	Wagon road, bears N.E. and S.W.
40.00	Set a sandstone 14x12x4 ins. 9 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face; dig pits 24x24x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
40.85	Drain, 30 lks. wide, course S.E.
46.45	Same drain, 20 lks. wide, course S.W.
57.70	Same drain, 20 lks. wide, course S.E.
80.00	Set a sandstone 16x14x4 ins. 11 ins. in the ground for cor. of Sec's. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edge; dig pits 20x20x12 ins. in each Sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
	Land, rolling.
	Soil, sandy loam, 2d rate.
	House of C. Erickson bears S. 34° E.

	N. 89°52' E. on a random line bet. Secs. 12 and 13.
40.00	Set temp. 1/4 Sec. cor.
79.90	Intersect E. bdy. of the Tp. 4 lks. S. of the cor. of Secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	S. 89°50' W. on a true line bet. Secs. 12 and 13.
	Over rolling land. Wagon road along line.
10.85	S.W. cor. of wire fence, bears N. 40 lks. dist.
13.90	S.E. cor. of field, bears N. 3.00 chs. dist.
	House of – Jacobson, bears N.
29.15	S.W. cor. of field, bears N. 3.00 chs. dist.
38.35	Drain, 25 lks. wide, course S.E.
	Wagon road, bears N.W. and S.E.
39.95	Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12

5 Subdivision of T. 34 N., R. 11 W.

Chains.	
	ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
	In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
42.10	N.E. cor. field, thence along N. edge of same
46.85	N.W. cor. of field, leave same.
61.22	Wagon road, bears N. and S.
70.35	Drain, 15 lks. wide, course S.
78.40	Drain 20 lks. wide, course S.
79.90	The cor. of Secs. 11, 12, 13 and 14.
	Land, Rolling.
	Soil, sandy loam, 2d. rate.

	S. 0°01' E. bet. Secs. 13 and 14.
	Over rolling land.
9.50	Drain, 15 lks. wide, course S.W.
40.00	Set a sandstone 14x12x4 ins. 9 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face, dig pits 24x24x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
	House of – Erickson bears N. 5°25' E.
57.48	Drain, 60 lks. wide, course S.E.
62.00	Same drain, 50 lks. wide, course S.W.
65.35	Creek bed, dry, 25 lks. wide, course E.
69.49	Wagon road, bears E. and W.
80.00	Set a sandstone 24x12x3 ins. 18 ins. in the ground for cor. of Secs. 13, 14, 23 and 24, marked with 3 notches on the S. and 1 notch on E. edges; dig pits 20x20x12 ins. in each Sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
	Land, rolling.
	Soil, sandy loam, 2d rate.

6 Subdivision of T. 34 N., R. 11 W.

Chains.

House of L. Kimbark bears S. 45° W. 14. chs. dist.
House, bears S. 21° E., unoccupied.

N. 89°50' E. on a random line bet. secs. 13 and 24.
40.00 Set temp. 1/4 sec. cor.
79.94 Intersect E. bdy. of the Tp. 4 chs. N. of cor. of secs. 13. 18. 19 and 24. heretofore described.
Thence I run
S. 89°52' W. on a true line bet. secs. 13 and 24.
Over rolling land
1.00 Wagon road, bears N.W. and S.E.
12.44 Drain, 50 lks. wide. course S.W.
22.80 N.E. cor. of field. bears S., 2.00 chs. dist.
23.94 Drain, 35 lks. wide. course S.E.
34.74 N.W. cor. of field, bears S. 20 lks. dist.
39.97 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
House bears N. 11° E. 15.00 chs dist., field E. of house.
49.74 Dry creek bed. 15 lks. wide. course S.
79.94 The cor. of secs. 13. 14. 23 and 24.
Land, rolling.
Soil, sandy loam 2d. rate.
Too cloudy for observations for latitude

From the cor. of secs. 13. 14. 23 and 24, I run S. 0° 01' E. on a random line bet. secs. 23 and 24, and at 74.11 chs. intersect 22 chs. E. of the closing cor. on S.W. bdy Ft. Ransom military reservation. The course of the true line will therefore be S. 0° 08' W. From the above cor.
I run
S. 0° 08' W. on a true line bet. secs. 23 and 24.

Subdivision T. 34 N., R. 11 W. 7

Chains

Over rolling prairie
3.20 House, bears E. 1.00 ch. dist. vacant.
3.84 N.W. cor. field. thence along W. edge of same.
18.80 N.E. cor. of field, bears W. 1.00 ch. dist.
27.18 S.W. cor. of field, bears same.
39.58 S.E. cor. of field. bears W. 1.00 ch. dist.
40.00 Set a sandstone 17x10x3 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face.; dig pits 24x24x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
61.20 Silver creek, deg. 35 lks. wide. course E.
74.11 The closing cor. of secs. 23 and 24, which is a stone 7x6x4 ins. above ground, firmly set. and marked, and witnessed as described by the surveyor general. from which the 8th mile cor. on the S.W. bdy of the Ft. Ransom Military reservation bears. N. 51° 36' W. 10.13 chs. dist., dig a pit 24x24x12 ins. N. of stone, and clean out the old pits on line S.E. N.W. and S. and raise a mound of earth 4 ft. base 2 ft high N. of cor. and mark the stone C.C. on N. face.
Land, rolling.
Soil, sandy loam 2d. rate.

From the cor. of secs. 19. 24. 25 and 30. on the E. bdy. of the Tp., heretofore described. I run West on a random line. and at 72.44 chs. intersect 20 chs N. of the closing cor. of secs. 24 and 25. on S.W. bdy of Ft. Ransom military reservation. The course of the true line will therefore be S. 89° 47' W. From the above described sec. cor.
I run
S. 89° 47' W on a true line bet. secs. 24 and 25.
Over hilly prairie.

T.33 R.11
T.33 R.12
T.34 R.12
T.35 R.12

8 Subdivision of T.34 N. R.11 W.

Chains

3.20 Silver creek, dry, 40 lks. wide, course S.E. ascend over hilly land.
13.00 Drain, 60 lks. wide, course N.E.
15.95 Enter field at S.E. cor. thence along S. edge.
24.20 Leave field at S.W. cor.
32.00 Wagon road, bears N.E. and S.W.
72.44 The closing cor. of final secs. 24 and 25, on S.W. bdy. of Ft. Randall military reservation which is a stone 6x4x4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. From which the 7½ mile cor.; heretofore described; bears S. 31° 36' E. 20.07 chs. dist. dig a pit 24x24x12 ins. E. of stone 7 ft. dist. and clean out the old pits N.W. S.E. and W. of stone, and raise a mound of earth 4 ft. base 2 ft. high E. of cor.
Land rolling and hilly.
Soil, 2d. and 3d. rate.

From the cor. of secs. 2, 3, 34 and 35, on the N. bdy. of the Tp.; heretofore described.
I run
S. 0° 02' E. bet. secs. 2 and 3.
Over rolling land.
6.06 N.E. point of field. Field bears W. and S.W.
27.57 Wagon road, bears N.E. and S.W.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit. In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face. N.W. cor. of field, bears E. 3.00 chs. dist. extends ½ mile E.
52.45 N.E. cor of field, thence along E. edge of same.
62.90 Wagon road, bears N. 25° E. and S. 25° W.
Leave field at S.E. cor.

9 Subdivision of T.34 N., R.11 W.

Chains

63.00 S.W. cor. of field, bears E. 3.00 chs., and N.W. cor. of wire fence, bears E. 3.00 chs. dist.
72.00 House of W. Barrett bears W.
79.18 Wagon road, bears E. and W.
80.00 Set a sandstone 17x14x3 ins. 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11 marked with 5 notches on the S. and 2 notches on the E. edges, dig pits 20x20x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft high, W. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.

East on a random line bet. secs. 2 and 11.
40.00 Set temp. 1/4 sec. cor.
80.28 Intersect N. and S. line 4 lks. S. of the cor. of secs. 1, 2, 11 and 12.
Thence I run
S. 89° 58' W. on a true line bet. secs. 2 and 11.
Over rolling land.
9.08 Wire fence, bears N. and S. near N.W. cor.
10.25 House of E. Sinclair, bears N. 1.75 chs. dist.
17.70 Gross Post office, bears N.
Enter at N.E. cor. of field, thence along N. edge of same, extends ½ mile S.
21.00 House and Blacksmith shop of C.W. Baker bears N. 8.00 chs. dist.
36.60 Leave field at N.W. cor.
36.75 Wagon road, bears N.E. and S.
S.E. cor. of wire fence, bears N. 1.00 ch. dist.
37.50 House of B. Gross bears N. 6.00 chs. dist.
40.14 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit. In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.

T.33 N. R.11
T.33 N. R.12
T.34 N. R.12
T.35 N. R.12

10 Subdivision of T. 34 N., R. 11 W.

Chains

House of B. Gross bears N. 22°30' E.
House of W. Lapworth bears S. 47°30' W. 6.00 chs. dist.
77.20 S.W. cor. of wire fence, bears N. 60 lks. dist.
78.42 Drain, 60 lks. wide. course S.W.
80.28 The cor. of secs. 2, 3, 10 and 11.
Land, rolling.
Soil, sandy loam. 2d rate.
Aug. 13th, 1895.

Aug. 14th. At 7h 5m a.m. l.m.t. I set off 42°56'.5 on the lat arc, and 14°23' N. on the decl. arc, and determine a true meridian with the solar, at the cor. of secs 2, 3, 10 and 11.
Thence I run
S. 0°02' E. bet. secs 10 and 11.
Over rolling land.
0.80 Enter drain from the N.E. to the S. 50 lks. wide.
10.35 Leave drain. course to the S.W.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins sq. 12 ins. in the ground. marked 1/4 S. on W. face.
House of C. Paulson bears S. 50° W. 18.00 chs. dist.
House bears S. 58° E. 15.00 chs. dist.
50.65 Drain, 25 lks. wide. course N.W.
52.35 Drain, 25 lks. wide. course E.
57.65 Same drain, 35 lks. wide, course W.
66.00 Same drain, 35 lks. wide. course E.
71.80 Same drain, 35 lks. wide. course W.
74.00 Same drain. 35 lks. wide. course S.E.
76.60 Another drain, 20 lks. wide course E.
80.00 Set a sandstone 14×10×4 ins. 9 ins. in the ground for cor. of secs. 10, 11, 14 and 15

Subdivision of T. 34 N., R. 11 W. 11

Chains

marked with 4 notches on the S. and 2 notches on the E. edges. dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
Land, rolling.
Soil, sandy loam. 2d. rate.

N. 89°58' E. on a random line bet. secs. 11 and 14.
40.00 Set temp. 1/4 sec. cor.
80.24 Intersect N. and S. line 2 lks. N. of cor. of secs. 11, 12, 13 and 14.
Thence I run
S. 89°59' W. on a true line bet. secs. 11 and 14.
Over rolling land.
14.45 Drain, 20 lks. wide. course S.E.
22.36 Wagon road bears N.E. and S.W.
22.42 S.E. cor. of field. bears N. 20 lks. dist.
31.00 S.W. cor. of field. bears N. 75 lks. dist.
Wagon road. bears N. and S.
38.15 Enter N.E. cor. of field. thence along N. edge.
40.12 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist and raise a mound of earth 3½ ft. base, 1½ ft high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on N. face.
41.00 Leave field at N.W. cor.
49.60 Drain, 20 lks. wide. course S.E.
75.15 Drain, 50 lks. wide. course S.E.
77.04 Wagon road. bears N.E. and S.W.
80.24 The cor. of secs. 10, 11, 14 and 15.
Land, rolling.
Soil, sandy loam 2d. rate.

T.35 R.11 T.33 R.12 T.34 R.12 T.35 R.12

12 Subdivision of T. 34 N., R. 11 W.

Chains

S. 0°02' E. bet. secs. 14 and 15.
Over rolling prairie.
16.88 Wagon road, bears N. 40° E. and S. 40° W.
N.E. cor. of field, bears W. 20 lks. dist.
25.75 House of H. Laperald bears S. 56°30' W.
33.00 S.E. cor. of field. bears W. 1.00 ch. dist.
35.64 Drain, 45 lks. wide. course N.E.
38.80 N.W. cor. of field on line
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
House of H. Laperald bears N. 61° W.
40.33 N.E. cor. of field, bears W. 60 lks. dist.
45.00 S.E. cor. of field, bears W. 60 lks. dist.
45.80 Wagon road. bears N.W. and S.E. along line.
59.18 S.W. cor. of field. bears E. 30 lks. dist.
71.50 House bears E.
80.00 Set a sandstone 15 x 10 x 5 ins. 10 ins. in the ground for cor. of secs. 14, 15, 22. and 23. marked 3 notches on the S. and 2 notches on the E. edges; dig pits 20 x 20 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base. 2 ft. high, W. of cor.
Land, rolling.
Soil. sandy loam. 2d. rate.
Aug. 14th. At this cor. I set off 14°18' N. on the decl. arc. and at 0h 5m p.m. l.m.t. observe the sun on the meridian the resulting lat. is. 42° 55'. which is the correct latitude.

N. 89° 54' E. on a random line bet. secs. 14 and 23.
40.00 Set temp. 1/4 sec. cor.
80.24 Intersect N. and S. line 12 lks. S. of the cor. of secs. 13, 14. 23 and 24.

Subdivision of T. 34 N. R. 11 W. 13

Chains

Thence I run
S. 89° 54' W. on a true line bet. secs. 14 and 23.
Over rolling land.
Wagon road along N. side of line
1.78 Wagon road. bears N. and S.
15.60 House of A Nygrin bears N. 1.00 ch. dist.
16.00 S.E. cor. of field. bears N. 50 lks. dist.
38.55 S.W. cor. of field bears N. 50 lks. dist.
N.E. cor. of wire fence bears S. 50 lks. dist.
40.12 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24 x 24 x 12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
55.00 House bears N.
56.20 N.W. cor. of wire fence bears S. 50 lks. dist.
63.00 N.E. cor. of field. bears S. 50 lks. dist.
79.80 N.W. cor. of field on line.
Wagon road, bears N.E. and S.W.
80.24 The cor. of secs. 14, 15, 22 and 23.
Land rolling.
Soil. sandy loam, 2d. rate.

From the cor. of secs. 14, 15, 22 and 23.
I run
S. 0°02' E. on a random line bet. secs. 22 and 23, and at 10.53 chs. intersect 4 lks. W. of the closing cor. of fract. secs. 22 and 23 on the S.W. bdy line of the Ft. Randall military reservation. The course of the true line will therefore be S. 0°15' E.
From the above described sec. cor.
I run
S. 0°15' E. on a true line bet. fract. secs. 22 and 23.
Over rolling land.

T.35 R.11
T.33 R.12
T.34 R.12
T.35 R.12

14 Subdivision of T. 34 N., R. 11 W.

Chains.

0.15 N.E. cor. of field bears W. 35 lks. dist.
10.53 The closing cor. of fract. secs. 22 and 23 on S.W. bdy. of the Ft. Randall Military reservation, which is a stone 16×4×4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. From this cor. the 9th mile cor., heretofore described, bears S 51°36' E 12.20 chs. dist. I mark the stone C.C. on N. face, and dig a pit 24×24×12 ins. N. of cor. 7 ft. and restore the old pits and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, rolling
Soil, sandy loam, 2d. rate.

From the cor. of secs. 3, 4, 33 and 34, on the N. bdy. of the Tp., heretofore described
I run
S. 0°02' E. bet. secs. 3 and 4.
Over rolling land.
Wagon road along W. of line.
0.82 N.W. cor. of field, thence along W. edge of same.
22.45 S.W. cor. of field, leave same.
23.50 House of F. E. Roach, bears W.
House bears E. 10.00 chs. dist.
26.60 N.W. cor. of wire fence, on line extends S. and E.
N.E. cor. of field, bears W. 60 lks. dist.
40.00 S.E. cor. of field, bears W. 60 lks. dist.
Set a sandstone 12×12×5 ins. 8 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 24×24×12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
40.62 S.W. cor. of wire fence on line.
~~S.E. cor. of field, bears W. 100 ch. dist.~~
N.W. cor of field on line, extends E. and S.

Subdivision of T. 34 N., R. 11 W. 15

Chains.

48.25 N.E. cor. of field, bears W. 75 lks. dist.
68.70 Drain, 40 lks. wide. Course N.E.
S.E. cor. of field, bears W. 60 lks. dist.
72.00 House of E. Bramer bears E.
79.25 S.W. cor. of field, bears E. 50 lks. dist.
79.73 Wagon road, bears E. and W.
80.00 Set a sandstone 16×14×4 ins. 11 ins. in the ground for cor. of secs. 3, 4, 9 and 10 marked with 5 notches on the S. and 3 notches on the E. edges, dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
Land, rolling prairie.
Soil, sandy loam, 2d. rate.

East on a random line bet. secs. 3 and 10.
40.00 Set temp. 1/4 sec. cor.
79.82 Intersect N. and S. line 18 lks. N. of cor. of secs. 2, 3, 10 and 11.
Thence I run
N. 89°52' W. on a true line bet. secs. 3 and 10.
Over rolling land
5.35 House of W. Kenneth bears N. 44° W.
6.65 Wagon road, bears N. and S.
18.15 Drain, 15 lks. wide, course S.
19.85 S.E. cor. of field, bears N. 1.20 chs. dist.
31.50 S.W. cor. of field, bears N. 2.50 chs. dist.
34.20 Drain, 10 lks. wide. Course S.E.
35.00 Wagon road crosses from N. to S. of line
35.95 Same drain, 15 lks. wide, course N.E.
38.60 Same drain, 20 lks. wide, course S.E.
39.91 Set a sandstone 14×12×4 ins. 9 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 24×24×12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high, N. of cor.

T.35 R.11
T.33 R.12
T.34 R.12
T.35 R.12

16 Subdivision of T. 34 N., R. 11 W.

Chains

65.00 Wagon road crosses from S. to N. of line.
65.26 S.E. cor. of field. bears N. 60 lks. dist.
House of E. Bramer bears N.
79.28 S.W. cor. of field. bears N. 1.00 ch. dist.
79.82 The cor. of secs. 3.4.9 and 10.
Land, rolling.
Soil, sandy loam. 2d. rate.
E. Paulsons house and improvements are located on the N.E¼ of the N.E¼ of Sec 10.

S. 0° 0' E. bet. secs. 9 and 10.
Over rolling land.
Road parallelling W. of line
0.35 N.E. cor. of wire fence bears W. 1.20 chs. dist.
16.00 House of S. Chinn, bears W.
21.76 S.E. cor. of fence, bears W. 1.00 ch. dist.
22.00 N.E. cor. of field, bears W. 1.00 ch. dist.
28.83 N.W. cor. of fence, bears E. 40 lks. dist.
33.48 S.E. cor. of field. bears W. 60 lks. dist.
39.35 S.W. cor. of wire fence. bears E. 40 lks. dist.
40.00 Set a sandstone 15×12×4 ins. 10 ins. in the ground for ¼ Sec. cor. marked ¼ on W. face; dig pits 24×24×12 ins. N. and S. of stone, 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
43.00 House of S. Chinn bears N. 24° W.
House bears S. 84° W. 8.00 chs. dist.
43.95 N.W. cor. of field on line, 3.00 chs wide.
53.65 Drain. 20 lks. wide. course S.E.
62.60 House of G. Person, bears E. 2.40 chs. dist.
80.00 Set a sandstone 16×14×5 ins. 11 ins. in the ground for cor. of secs. 9.10.15 and 16. marked with 4 notches on the S. and 3 notches on E. edges.; dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, rolling.

Subdivision of T. 34 N., R. 11 W. 17

Chains.

Soil, sandy loam 2d. rate.

S. 89° 52' E. on a random line bet. secs. 10 and 15.
40.00 Set temp. ¼ Sec. cor.
79.94 Intersect N. and S. line 23 lks. S. of the cor. of secs. 10.11.14 and 15.
Thence I run
S. 89° 58' W. on a true line bet. secs. 10 and 15.
Over rolling land.
29.12 Wagon road. bears N. and S.
39.97 Deposit a marked stone 12 ins. in the ground for ¼ Sec. cor.; dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. Marked ¼ S. on N. face.
50.00 Drain, 25 lks. wide. course S.E.
63.50 Drain, 25 lks. wide. course S.E.
67.63 Enter field. bears N. and S.
79.78 Leave field. bears N. and S.
79.94 The cor. of secs. 9.10.15 and 16.
Land, rolling.
Soil. sandy loam. 2d. rate.

By trial I find that the line bet. secs. 15 and 16. will not close to the old c.c. within the 21' limit. Therefore
I run
S. 0° 0' E. on a true line bet. secs. 15 and 16.
Over rolling land.
15.00 House of E. Whitter bears W. 100 lks. dist.
27.37 Intersect S.W. bdy. of Ft. Randall military reservation at a point from which the 10½ mile cor. heretofore described, bears

Chains

N. 51°36' W. 5.98 chs. dist.
Set a sandstone 22×14×6 ins. 16 ins. in the ground for closing cor. of pocl. Secs. 15 and 16, marked C.C. on N. face, and 3 grooves on E. face, dig pits 30×30×12 ins. on each line S. 51°36' E. 3 ft. and N. of stone 7 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.

By trial, I find that the line bet. Secs. 15 and 22 will not close to the old C.C. within the 21' limit, therefore
From the cor. of Secs. 14, 15, 22 and 23.
I run
West on a true line bet. Secs. 15 and 22.
Over rolling land.
0.35 N.E. cor. of field, bears S. 15 lks. dist.
8.50 N.W. cor. of field, bears S. 20 lks. dist.
13.23 Intersect S.W. bdy. of Ft. Randall Military Reservation at a point from which the 9½ mile cor. heretofore described, bears N. 51°36' W. 10.89 chs. dist.
Set a sandstone 17×10×4 ins. 12 ins. in the ground for closing cor. of pocl. Secs. 15 and 22, marked C.C. on E. face, with 3 grooves on S. face, dig pits 30×30×12 ins. cross size on each line N. 51°36' W. 3 ft. and E. of stone 7 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high E. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.

Aug. 14th, 1895.
Charles S. Byles
U. S. Survyr

Chains

Aug 15th. At the cor. of Secs. 4, 5, 32 and 33, on N. bdy. of the Tp. heretofore described.
I set off 13° 59' N. on the decl. arc. and at 0h 4m p.m. l.m.t. observe the sun on the meridian, the resulting lat. is 42° 57'.5 which is about 0'.1 less than the correct lat.
From the above described Sec. cor.
I run
S. 0° 03' E. bet. Secs. 4 and 5.
Over rolling prairie.
Wagon road along line.
1.28 N.E. point of field, bears W. 80 lks. dist.
3.25 Wagon road, bears N.E. and S.W.
17.52 N.W. cor. of fence, bears E. 20 lks. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor., dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high, over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
68.26 S.E. cor. of field, bears W. 20 lks. dist.
77.25 House of B. Elsworth bears E.
80.00 S.W. cor. of wire fence, bears E. 15 lks. dist.
Set a sandstone 14×10×6 ins. 9 ins. in the ground for cor. of Secs. 4, 5, 8 and 9, marked with 5 notches on the S. and 4 notches on the E. edges, dig pits 20×20×12 ins. in each Sec 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.
House of J.W. Blair bears S. 67° 40' W.

East on a random line bet. Secs. 4 and 9.
40.00 Set temp. 1/4 Sec. cor.
80.16 Intersect N. and S. line 18 lks. N. of cor. of Secs 3, 4, 9 and 10

20 Subdivision of T. 34 N., R. 11 W.

Chains

Thence I run
N. 89° 52' W. on a true line bet. secs. 4 and 9.
Over rolling land.
Wagon road along line.
0.85 Wagon road, bears N. and S.
1.20 N.E. cor. of wire fence, bears S. 35 lks. dist.
15.85 N.W. cor. of wire fence, and N.E. cor. of field bears S. 40 lks. dist.
House of D. Chinn bears S.
House of A. Howbing bears N.
39.65 N.W. cor. of field, bears S. 30 lks. dist.
39.90 S.E. cor. of field on line.
40.08 Set a sandstone 16×8×5 ins. 11 ins. in the ground, for 1/4 Sec. cor. Marked 1/4 on N. face; dig pits 24×24×12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, N. of cot.
62.55 S.W. cor. of field, and S.E. cor. of wire fence bears N. 20 lks. dist.
House of J. Bowers bears S. 8.00 chs. dist.
75.00 House of B. Elsworth bears N.
79.85 S.W. cor. of wire fence on line.
80.16 The cor. of secs. 4, 5, 8 and 9.
Land, rolling.
Soil, sandy loam, 2d. rate.

From the cor. of secs. 4, 5, 8 and 9.
I run
S. 0° 03' E. on a random line bet. secs. 8 and 9. at 43.68 chs. intersect 6 lks. E. of the closing cor. of secs. 8 and 9. on the S.W. bdy of the Fort Randall Military reservation, the course of the true line is therefore S. 0° 02' W.
From the above described sec. cor.
I run
S. 0° 02' W. on a true line bet. secs. 8 and 9.
Over rolling land.
Wagon road paralleling W. of line.

Subdivision of T. 34 N. R. 11 W. 21

Chains

0.55 N.E. cor. of field, bears W. 12 lks. dist.
17.30 N.W. cor. of field, bears E. 25 lks. dist.
28.40 S.W. cor. of field, bears E. 20 lks. dist.
38.00 S.E. cor. of field, bears W. 40 lks. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
40.35 N.W. cor. of field, bears E. 30 lks. dist.
43.68 The closing cor. of secs. 8 and 9, on S.W. bdy. of Ft. Randall military reservation which is a stone 9×6×5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general, from which the 11½ mile cor., heretofore described, bears S. 51° 36' E. 16.43 chs. dist.; Mark the stone C.C. on N. face, and dig a pit 24×24×12 ins. N. of stone 7 ft dist. and restore the old pits, and raise a mound of earth, 4 ft. base 2 ft. high, N. of cot.
Land, rolling.
Soil, sandy loam 2d. rate.

From the cor. of secs. 9, 10, 15 and 16.
I run
N. 89° 52' W. on a random line bet. secs. 9 and 16. and at 34.75 chs. intersect 17 lks. N. of old C.C. on S.W. bdy. Ft. Randall Military reservation. The course of the true line is therefore S. 89° 51' W.
From the above described sec. cor.
I run
S. 89° 51' W. on a true line bet. secs. 9 and 16.
Over rolling land.
0.30 Wagon road, bears N. and S.
0.40 N.E. cor. of wire fence, bears S. 25 lks. dist.

22 Subdivision of T. 34 N., R. 11 W.

Chains

34.75 The closing cor. of fract. secs. 9 and 16. on the S.W. bdy of the Ft. Randall military reservation, which is a stone 8x4x2 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general, from which the 11th. mile cor., heretofore described, bears N.51°36'W. 1.59 chs. dist., mark the stone C.C. on E. face, and dig a pit 24x24x12 ins. E. of stone 7 ft. dist. and restore the old pits, and raise a mound of earth 4 ft. base, 2 ft. high E. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.

From the cor. of secs. 4, 5, 8 and 9
I run
West on a random line bet. secs. 5 and 8. and at 55.48 chs. intersect 20 lks. S. of the C.C. to secs. 5 and 8 on the S.W. bdy. of the Ft. Randall military reservation. The course of the true line will therefore be, N.89°48'W.
From the above described sec. cor.
I run
N.89°48'W. on a true line bet. secs. 5 and 8.
Over rolling land.
Wagon road parallelling N. of line.
0.12 N.E. cor. of field, bears S. 55 lks. d.
5.00 N.W. cor. of field, bears S. 50 lks. dist.
6.00 House of J.W. Blair bears S.
7.35 N.E. cor. of wire fence, bears S. 60 lks. dist.
24.00 N.W. cor. of wire fence, bears S. 50 lks. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit. In E. pit drive a stake 2 ft. long 2 ins. sq.

Subdivision of T. 34 N. R. 11 W. 23

Chains

12 ins. in the ground, marked 1/4 S. on N. face.
41.07 N.E. cor. of wire fence, bears S. 30 lks. dist.
52.10 N.W. cor. of wire fence, bears S. 20 lks. dist.
55.48 The closing cor. of fract. secs. 5 and 8. on the S.W. bdy. of the Ft. Randall military reservation, which is a stone 12x10x4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general, from which the 12½ mile cor., heretofore described, bears S.51°36'E. 7.32 chs. dist., mark the stone C.C. on E. face, and dig a pit 24x24x12 ins. E. of stone 7 ft. dist., and restore the old pits, and raise a mound of earth 4 ft. base, 2 ft high. E. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.

From the cor. of secs. 5, 6, 31 and 32. on the N. bdy of the Tp., heretofore described.
I run
S.0°04'E. on a random line bet. secs. 5 and 6. and at 60.78 chs. intersect 25 lks. E. of the closing cor. of fract. secs. 5 and 6. on the S.W. bdy. of the Ft. Randall military reservation.
The course of the true line will therefore be S.0°10'W.
From the above described sec. cor.
I run
S.0°10'W. on a true line bet. fract. secs. 5 and 6.
Ascending broken hilly land.
24.50 Top of hills, on same ridge. bears E. and W.
Thence descend over rolling land.
39.03 Wagon road. bears N.W. and S.E.
39.90 N.W. cor. of field. bears E., 20 lks. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24x24x12

24 Subdivision of T. 34 N., R. 11 W.
Chains

N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit. In S. pit drive a stake 2 ft long, 2 ins. sq. 1½ ins. in the ground, marked ¼ S. on W. face. Wagon road paralleling west of line.

60.28 The closing cor. of fract. secs. 5 and 6, on the S.W. bdy. of the Ft. Randall military reservation, which is a stone 7×6×3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general, from which the 13th. mile cor., heretofore described, bears N. 51°36' W. 1.09 chs. dist., mark the stone C.C. on N. face, and dig a pit 24×24×24 ins. N. of stone 7 ft. deep and restore the old pits, and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.

Land rolling and hilly.

Soil, sandy, 2d. and 3d. rate.

I return to the meridian established Aug. 2d. from Polaris, at 5h. 40m. p.m. l.m.t. I set off 13°59' N. on the decl. arc. and at the adjustment of my solar, finding it gives the same meridian as before, and adjustments correct.

Aug. 15th, 1895.

General description.

The surface of this fractional township as shown by the foregoing field notes is rolling prairie, with a deep sandy loam, producing a heavy growth of wild grasses, and when cultivated producing good crops, of all kinds. The lands are thickly settled by a class of industrious farmers. A post office, called Baker, and a small store, and a blacksmith shop is located on the S.E. ¼ of sec. 2

Charles H. Bates.
U. S. Deputy Surveyor.

Subdivision of T. 34 N., R. 11 W. 25

* The latitude and longitude of the N.E. corner of the township as appears on the plat is.
Latitude, 42°58' N.
Longitude, 98°33' W.

List of Names.

A list of the names of the individuals employed by ..... , U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

For final oaths of assistants and deputy see those with field notes of Township No 35 N. Rg No 12 West of the 6th principal Meridian surveyed under this same contract and contained in one book lettered "P"

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18

SEAL

6—151

T.35 R.11

T.33 R.12

T.34 R.12

T.35 R.12

134. 136.

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

.....

..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Huron So Dak. July 11, 1896.

The foregoing field notes ~~of the survey of~~ Contained in one Book lettered M of the Survey of the Subdivision lines of fractional township No 311 N of Range No 11 West (within the abandoned Fort Randall Military Reservation) of the Sixth Principal Meridian in the State of Nebraska

Charles H. Bates executed by under his Contract No. 106, dated March 28th, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Richard B. Hughes

U. S. Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above-described surveys in Nebraska, has been correctly copied from the original notes on file in this office.~~

~~Richard B. Hughes~~

~~U. S. Surveyor General.~~

6—151

T.35 R.11

T.33 R.12

T.34 R.12

T.35 R.12

134. 136.

Received with letter of R B Hughes, Surveyor General of So. Dak, dated Feb. 8-1897

137.

(4—679.)

Book O.

FIELD NOTES

OF THE SURVEY OF

the subdivision lines of fractional Township No. 35 North of Range No. 11 West (within the abandoned Fort Randall Military Reservation)

Of the 6th Principal Meridian,

Nebraska

AS SURVEYED BY

Charles H Bates, U. S. Deputy Surveyor,

Under his Contract No. 106, dated March 28th 1895

Survey commenced August 19th, 1895

Survey completed August 22, 1895.

(12503—2,000.)

T.35 R.11

T.33 R.12

T.34 R.12

T.35 R.12

Names and Duties of Assistants.

Tim Burns, Chainman.

E. H. Hinsdale, Chainman.

C. H. Armstrong, Chainman and Moundman

H. M. Tinotte, Chainman and Moundman

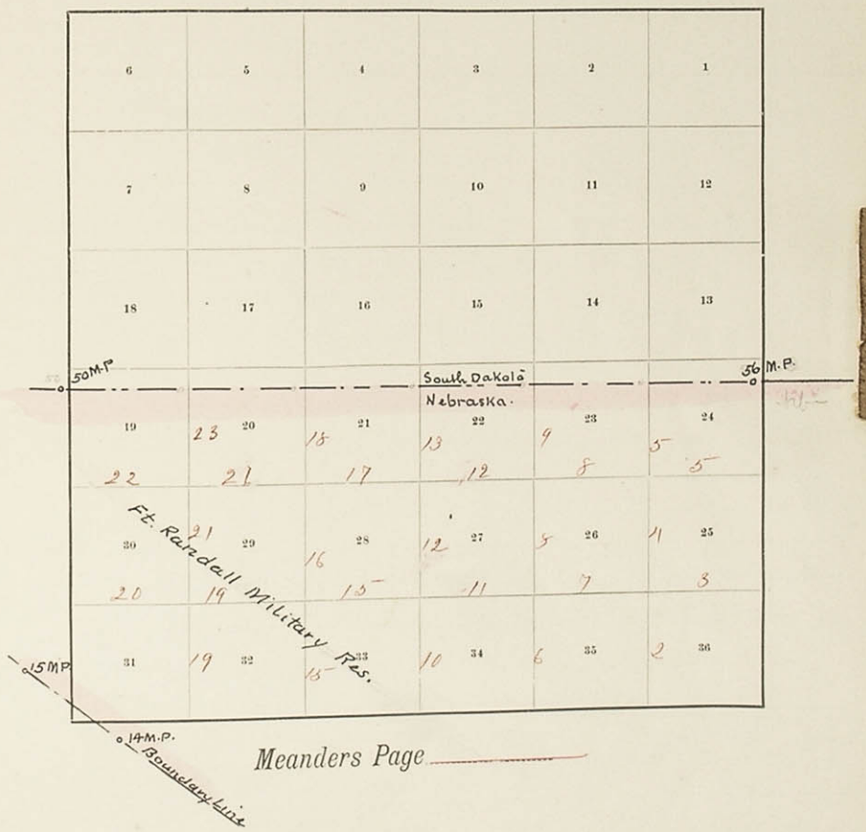
E. R. Cook, Moundman

A. M. Fox, Moundman,

C. Wright, Flagman and Moundman.

INDEX DIAGRAM.

Township 35 N. (35), *Range* 11 W. (11)



Meanders Page _____

T.35 R.11

T.33 R.12

T.34 R.12

T.35 R.12

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For preliminary oaths of assistants see those with the field notes of Tp. 34 N. R. 10 West of the 6th principal Meridian, Surveyed under this same Contract and Contained in Book lettered "L".

..... , Chainman.

..... , Chainman.

..... , Chainman.

..... , Chainman.

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

..... , Axeman.

..... , Axeman.

.....

.....

6—134.

Subdivision of T. 35 N., R. 11 W. 1

Survey commenced Aug. 19th 1895. and executed with a Burts improved solar compass No 4834. made by Young and Sons Phila. Pa.

The horizontal limb is provided with two opposite verniers reading to single minutes of arc, which is also the least count of the latitude and declination verniers.

The instrument was examined, tested on the meridian at Huron, S. Dak., found correct, and was approved by the Surveyor general of South Dakota, May 11th. 1895.

In order to test the solar apparatus by comparing the results of p.m. and a.m. observations on the sun, with a true meridian, I proceed as follows.

Aug. 18th. I set off 42°56' on the lat. arc, and 12°59' N. on the decl. arc, and at $5^h 30^m$ p.m. l.m.t. tst the adjustment of my solar on the true meridian I established Aug. 2d. from Polaris,* near the cor. of Secs. 7, 12, 13 and 18 on W. bdy of Tp. 34 N. R. 10 W. I find it gives the same meridian and adjustment correct.

Aug. 19th. I set off 42°56' on the lat. arc, and 12°48.5' N. on the decl. arc, and at $6^h 40^m$ a.m. l.m.t. again tst my solar on the same meridian, and find it gives the same meridian and adjustments are correct.

The latitude and longitude of the S.E. cor. of the Tp. to appear on the plat is
Latitude, 42°58' N.
Longitude, 98°33' W.

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* Meridian of record in the field notes of the Fort Randall military reservation boundary line.

T. 33 R. 12 | T. 34 R. 12 | T. 35 R. 12

2 Subdivision of T.35 N., R.11 W.

Chains.

Aug. 19th. At 7h 50m a.m. l.m.t. I set off 42°57'.5 on the lat. arc, and 12°46'.5 N. on the decl. arc and determine a true meridian with the solar at the cor. of secs. 1. 2. 35 and 36, on S. bdy. of the Sp., heretofore described.

Having recently run the S. and E. bdy. of sec. 36 the same is not retraced.

The magnetic bearing of the true meridian, at 7h 50m a.m. is N 12°00' W., the angle thus determined reduced by the table, page 100, gives the mean mag. decl. 11°54' E.

From the cor. above described

I run

N. 0°1' W. bet. secs. 35 and 36.

Over mountainous land. descending.

15.08 Foot, and drain, 70 lks. wide. course N.E. Scatting trees and brush on the hillside and along drain. Ascend

22.60 Top of ridge on E. slope, extends W. descend.

28.68 Foot, and drain, 20 lks. wide, course E. in brush ravine 125 ft. deep. ascend.

35.50 Top of hills. bears E. and W. thence over rolling land.

40.04 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked 1/4 S. on W. face.

43.00 Top of hills. bears E. and W. descend mountainous land.

58.30 Foot, and drain, 30 lks. wide. course E. thence over ridges.

66.40 Drain. 30 lks. wide. course S.E. ascend.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 25. 26. 35 and 36. dig pits 20×20×12 ins. in each sec. 4 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high over deposit.

Subdivision of T.35 N., R.11 W. 3

Chains.

In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

T.35 N. S.25 on N.E.

R.11 W. S.36 on S.E.

S.35 on S.W. and

S.26 on N.W. faces. with 1 notch on S. and E. edges.

Land, rolling and mountainous

Soil. 3d. and 4th. rate.

Mountainous land 72.50 chs.

East on a random line bet. secs. 25 and 36.

40.00 Set temp. 1/4 sec. cor.

80.06 Intersect E. bdy. of Sp. 8 lks. S. of the cor. of secs. 25. 30. 31 and 36. heretofore described.

Thence I run

S. 89°57' W. on a true line bet. secs. 25 and 36.

Over mountainous land. ascending along N slope of ridge.

36.00 Top of hills. bears N.W. and S.E. thence over rolling land.

40.03 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft high, over deposit.

In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on N. face.

51.25 Drain, 25 lks. wide. course S.E. in ravine 30 ft. deep.

S.E. Cor. field, 140 lks. N.

71.35 S.W. cor. field, bears N. 150 lks. dist.

76.00 Top of hills. bears N.W. and S.E. descend to cor.

80.06 The cor. of secs. 25. 26. 35 and 36.

Land. rolling and mountainous.

Soil. 2d. and 3d. rate.

Mountainous land 36.00 chs.

T.33 R.12

T.34 R.12

T.35 R.12

4 Subdivision of T.35 N. R.11 W.

Chains

N. 0°1' W. bet. secs. 25 and 26.
Ascending 40 ft.
6.50 Top of hills. Bears N.W. and S.E. thence over rolling prairie
13.00 Wagon road. Bears N.E. and S.W.
House of — McKenzie bears E. 11 chs. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
House bears S.89°70'W. 9.00 chs. dist.
House bears S.89°70'E. 7.00 chs. dist.
61.00 Top of hills. Bears E. and W. descend mountainous land.
72.00 Foot and drain, 50 lks. wide. course S.E. thence over ridges.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 23.24.25 and 26. dig pits 20x20x12 ins. in each sec. 4 ft. dist and raise a mound of earth 4 ft. base, 2 ft. high over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
T.35 N. S. 24 on N.E.
R.11 W. S. 25 on S.E.
S.26 on S.W. and
S.23 on N.W. faces. with 2 notches on S. and 1 notch on E. edges.
Land. rolling and mountainous.
Soil. 2d. and 3d. rate.
Mountainous land 19.00 chs.
Aug. 19th. At this cor. I set off 12°42'.5 N. on the decl. arc, and at 0h 4m p.m. l.m.t., observe the sun on the meridian, the resulting lat. is 42°09'.3 which is the correct lat.

Subdivision of T.35 N., R.11 W. 5

Chains

N. 89°57'E. on a random line bet. secs. 24 & 25.
40.00 Set temp. 1/4 Sec. cor.
80.04 Intersect E. bdy. of the Tp. 9 lks. S. of cor. of secs. 19.24.25 and 30. heretofore described.
Thence I run
S.89°53'W. on a true line bet. secs. 24 and 25.
Over mountainous land, along N. slope of hills.
40.02 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
66.50 Top of ridge, near N. point extends S. thence descend.
70.14 Foot, and drain, 30 lks. wide, course N. in brush ravine 130 ft. deep, ascend to cor.
80.04 The cor. of secs. 23.24.25 and 26.
Land. mountainous.
Soil. gumbo 3d. rate.
Mountainous land 80.04 chs.

N. 0°1' W. bet. secs. 23 and 24.
Over hilly, broken land. descending.
22.00 Foot. and drain, 30 lks. wide course E. in brush ravine. thence over ridges.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face
60.13 Intersect bdy. line bet. S. Dak. and Neb. at a point from which the 00 ch. mile stone, which is a quartzite stone 4 ft. 40x10x10

T.33 R.12
T.34 R.12
T.35 R.12

6 Subdivision of T.35 N., R.11 W.

Chains

ins. above ground, finely set. ~~and~~ marked & written as described by the surveyor general.
Bears W. 7.15 chs. dist.
Set a sandstone 15 x 12 x 5 ins. 10 ins. in the ground for closing cor. of sec. 23 and 24. marked C.C. on S. with 1 ~~groove~~ on E. and 5 ~~grooves~~ on W. faces, dig pits 24 x 24 x 12 ins. cross-pits on each line E. and W. 3 ft. and S. of stone 7 ft. dist. and raise a mound of earth 4 ft. base. 2 ft. high S. of cor.
Land, hilly and broken.
Soil, gumbo 3d. rate.

From the cor. of secs. 23. 34 and 35. on S. bdy of the Tp. heretofore described.
I run
N. 0°2' W. bet. secs. 34 and 35.
Over rolling land.

2.50	House of J. N. McWright, bears E. 8.50 chs. dist., apprx.
6.45	Wagon road. bears N.W. and S.E.
12.00	House of J. A. Fuller, bears W. 3.00 chs. dist.
22.00	S.W. cor. field. bears E. 1.40 chs. dist.
40.00	Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit. In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face. House bears N. 5°20' E. 8.00 chs. dist.
62.00	N.W. cor. field on line.
75.55	Drain, 50 lks. wide. course N.W. in ravine 60 ft. deep
80.00	Deposit a marked stone 12 ins. in the ground for cor. of secs. 26. 27. 34 and 35. dig pits 20 x 20 x 12 ins. in each sec. 4 ft. dist. and raise a mound of earth 4 ft. base 2 ft.

Subdivision of T.35 N., R.11 W. 7

Chains

high over deposit
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
T.35 N. S. 26 on N.E.
R.11 W. S. 35 on S.E.
S. 34 on S.W. and
S. 27 on N.W. faces. with 1 notch on S. and 2 notches on E. edges.
Land, rolling.
Soil, sandy loam 2d. rate.

East on a random line bet. secs. 26 and 35.

40.00	Set temp. 1/4 Sec. cor.
80.28	Intersect N. and S. line 32 lks. N. of cor. of secs. 25. 26. 35 and 36.

Thence I run
N. 89°46' W. on a true line bet. secs. 26 and 35.
Over hilly land. descending to drain.

2.78	Drain, 30 lks. wide. course S.
19.28	Drain, 20 lks. wide, course S.E. creek.
23.00	Top of hills. bears N. and S. thence over rolling land.
25.83	Wagon road. bears N. and S.
40.14	Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24 x 24 x 12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit. In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
45.38	Drain, 50 lks. wide. course N.W. in ravine 60 ft. deep.
80.28	The cor. of secs. 26. 27. 34 and 35.

Land, hilly and rolling.
Soil, sandy loam 2d. rate.
Aug. 19th. 1895.

T.33 R.12
T.34 R.12
T.35 R.12

8 Subdivision of T. 35 N., R. 11 W.

Chains.

N. 0° 2' W. bet. secs. 26 and 27.
Over rolling prairie.
34.00 Top of hills. bears N.W. and S.E. descend
mountainous land.
40.00 Set a sandstone 12 x 8 x 6 ins 8 ins. in the
ground for 1/4 Sec. Cor. marked 1/4 on W. face
dig pits 24 x 24 x 12 ins. N. and S. of stone 3 ft.
dist. and raise a mound of earth 3½ ft.
base, 1½ ft. high, W. of cor.
60.00 Drain, 50 lks. wide. course N.W. ascend to cor.
80.00 Set a sandstone 10 x 14 x 7 ins. 10 ins. in the
ground for cor. of secs. 22. 23. 26 and 27. marked
with 2 notches on S. and E. edges. dig pits
20 x 20 x 12 ins. in each Sec. 5½ ft. dist. and
raise a mound of earth 4 ft. base 2 ft.
high. W. of cor.
Land. rolling and mountainous.
Soil. 2d. and 3d. rate.
Mountainous land 46.00 chs.

Aug. 20th. At 8h. 10m a.m. l.m.t. I set off 42° 59', 3
on the lat. arc. and 12° 26'.5 N. on the decl.
arc, and determine a true meridian
with the solar at the cor. of secs. 22. 23. 26 and 27.
Thence I run
S. 89° 46' E. on a random line bet. secs. 23 and 26.
40.00 Set temp. 1/4 Sec. Cor.
80.36 Intersect N. and S. line 18 lks. S. of cor. of
secs. 23. 24. 25 and 26.
Thence I run
N. 89° 54' W. on a true line bet. secs. 23 and 26.
Over mountainous land. ascending.
13.99 Wagon road. and Top of ridge. bears N. and S.
Thence descend.
28.00 Foot and drain. 60 lks. wide. ascend.
40.18 Deposit a marked stone 12 ins. in the ground
for 1/4 Sec. Cor. dig pits 24 x 24 x 12 ins. E. and W.

Subdivision of T. 35 N., R. 11 W. 9

Chains

of Cor. 4 ft. dist. and raise a mound of
earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq.
12 ins. in the ground. marked 1/4 S. on N face.
42.65 Top of ridge. bears N. and S. descend.
63.15 Foot. and drain, 30 lks. wide. course N.W.
ascend.
72.00 Top of ridge. near N.W. end. bears S.E.
descend to cor.
80.36 The cor. of secs. 22. 23. 26 and 27.
Land. mountainous.
Soil. gumbo. 3d. rate.
Mountainous land 80.36 chs.

N. 0° 2' W. bet. secs. 22 and 23.
Over hilly, broken land. descending.
10.00 Foot. and drain, 50 lks. wide. course
N.E. in timber and brush cover. thence
along E. slope of hills.
30.00 Enter drain. course from the S.E.
34.00 Leave drain. course N.W. timber and
brush. thence along W. slope of hills.
40.00 Deposit a marked stone 12 ins. in the
ground for 1/4 Sec. cor. dig pits 24 x 24 x 12
ins. N. and S. of cor. 4 ft. dist. and raise
a mound of earth 3½ ft. base, 1½ ft. high
over deposit.
In S. pit drive a stake 2 ft. long 2 ins.
sq. 12 ins. in the ground, marked 1/4 S. on W. face.
59.70 Intersect bdy. line bet. S. Dak. and Neb.
at a point from which the 54th. mile
stone. which is a quartzite shaft 40 x 10
x 10 ins. above ground. firmly set, ~~and~~
marked and witnessed as described by the surveyor
general. bears W. 6.45 chs. dist.
Deposit a marked stone 12 ins. in
the ground for closing cor. of fract. secs.

T. 33 R. 12
T. 34 R. 12
T. 35 R. 12

10 Subdivision of T.35N., R.11W.

Chains.

22 and 23, dig pits 24×24×12 ins. crosswise on each line S. E. and W. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

C.C. T.35N. R.11W. on S.

S. 22 on W. and

S. 23 on E. faces. with 2 ~~grooves~~ on E. and 4 ~~notches~~ grooves on W. faces.

Land, hilly and broken.

Soil. gumbo 3d. rate.

From the cor. of secs. 3.4. 33. and 34. on S. bdy. of the Tp., heretofore described.

I run

N. 0°2'W. bet. secs. 33 and 34.

Over rolling land.

2.00 S.E. cor. of field. bears W. 90 lks. dist.

8.00 N.E. cor. of field. bears W. 1.00 ch dist.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face.

S.W. cor. field. bears E. 1.00 ch. dist.

42.81 Wagon road. bears E. and W.

44.30 House of J.R. Kimball, bears E. 3.50 chs. dist.

House of G.W. Blair bears W. 10 chs. dist.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 27. 28. 33 and 34. dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high, over deposit.

Subdivision of T.35N., R.11W. 11

Chains.

In S.E. pit drive a stake 2 ft. long. 2 ins. sq. 12 ins. in the ground, marked

T.35N. S. 27 on N.E.

R.11W. S. 34 on S.E.

S. 33 on S.W. and

S. 28 on N.W. faces. with 1 notch on S. and 3 notches on E. edges.

Land, rolling.

Soil. sandy loam. 2d. rate.

Too cloudy for observation for lat.

East on a random line bet. secs. 27 and 34.

40.00 Set temp 1/4 sec. cor.

80.24 Intersect N. and S. line 6 lks. N. of cor. of secs. 26. 27. 34 and 35.

Thence I run

N. 89°57'W. on a true line bet. secs. 27 and 34

Descend 25 ft. to drain. over mountainous land.

2.40 Drain, 20 lks. wide. course N.W. ascend 50 ft.

8.00 Top of ridge. bears N.W. and S.E. over same.

13.00 Top of ridge bears N. and S. descend 60 ft.

19.10 Drain, 20 lks. wide. course N. ascend 40 ft.

22.60 Top of ridge bears N. and S. descend.

30.75 Drain, 80 lks. wide, course N.E. ascend 150 ft.

40.12 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. over deposit.

In E. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on N. face.

49.00 Top of hills. bears N.E. and S.W. thence over rolling land.

62.37 Enter field. bears N. and S.

77.62 Leave field. bears N. and S.

80.24 The cor. of secs. 27. 28. 33 and 34.

Land. mountainous and rolling.

Soil. sandy. 2d. and 3d. rate.

Mountainous land 49.00 chs.

T.33.R.12.

T.34.R.12.

T.35.R.12.

12 Subdivision of T. 35 N., R. 11 W.

Chains.

N. 0° 02' W. bet. secs. 27 and 28.
Over rolling land.
23.30 Top of hills. leave rolling land. and descend mountainous land, over ridges.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high. over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
65.82 Foot. and drain, 40 lks. wide course N.E. in brush ravine. ascend to cor.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 21, 22, 27 and 28. dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, over deposit.
In S.E. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground. marked
T. 35 N. S. 22 on N.E.
R. 11 W. S. 27 on S.E.
S. 28 on S.W. and
S. 21 on N.W. faces. with 2 notches on S. and 3 notches on E. edges.
Land. rolling and mountainous.
Soil. sandy. 2d. and 3d. rate.
Mountainous land 56.70 chs.

S. 89° 57' E. on a random line bet. secs. 22 and 27.
40.00 Set temp. 1/4 sec. cor.
80.36 Intersect N. and S. line 18 lks. S. of the cor. of secs. 22, 23, 26 and 27.
Thence Iron
S. 89° 55' W. on a true line bet. secs. 22 and 27.
Over mountainous land,
descending to drain. 40 ft.
6.90 Foot. and drain. 25 lks. wide. course N.

Subdivision of T. 35 N., R. 11 W. 13

Chains.

9.16 Drain. 30 lks. wide. course N.E. in brush ravine, ascend 125 ft.
34.85 Top of ridge, bears N.E. and S.W. descend 130 ft.
40.18 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on N. face.
55.41 Foot. and drain 20 lks. wide course N.E. in timbered. and brush ravine, ascend 80 ft. to cor.
80.36 The cor. of secs. 21, 22, 27 and 28.
Land mountainous.
Soil. gumbo, 3d. rate.
Mountainous land. 80.36 chs.

N. 0° 02' W. bet. secs. 21 and 22.
Ascending hills.
7.00 Top of hills. bears E. and W. thence over rolling land.
35.00 House of N. Balloleny bears W. 11.00 chs. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face.
58.58 Wagon road. bears N.E. and S.W.
59.74 Intersect bdy. line bet S. Dak. and Neb. at a point from which the 53d. mile stone, which is a granite shaft. 40×10×10 ins. above ground. firmly set and witnessed and marked as described by the surveyor general: bears W. 5.69 chs. dist.
Deposit a marked stone 12 ins. in the

Chains

ground for closing cor. of Track Secs. 21 and 22, dig pits 24×24×12 ins. crosswise on each line E. W. and S. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked

C.C. T. 35 N. R. 11 W. on S.

S. 21 on W. and

S. 22 on E. faces, with 3 grooves on E. and W. faces.

Land, rolling.

Soil, sandy loam, 2d. rate.

Aug. 20th, 1895.

Aug. 20th. Near the center of Sec. 28, Latitude 42° 59. Longitude 98° 35' 59" W. At 9h 28m p.m. l.m.t. I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground 5.00 chs. N. of my station.

Aug. 21st. At 6h a.m. l.m.t. I lay off azimuth 143° to the west and mark the true meridian on a stake firmly driven in the ground 5.00 chs. N. of my station.

On this meridian I test the adjustments of my solar.

Aug. 21st. At 7h 15m a.m. l.m.t. I set off 42° 57.5' on the lat. arc, and 120° 08' W. on the decl. arc, and determine a true meridian with the solar at the cor. of Secs. 4, 5, 32, and 33, on the S. bdy. of the Sp., heretofore described.

Chains

Thence I run

N. 0° 0' 3" W. Bet. Secs. 32 and 33

Over rolling land

23.65 Wagon road, bears N.W. and S.E.

28.00 Top of sand ridge, bears E. and W.

38.15 S.E. cor. of field, bears W. 80 lks. dist.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face

61.75 N.E. cor. of field, bears W. 90 lks. dist.

63.00 House of Geo. Harvey, bears W. 6.50 chs. dist.

78.00 Top of hills, bears N.E. and S.W. descend mountainous land.

80.00 Set a sandstone 16×14×5 ins. 11 ins. in the ground for cor. of Secs. 28, 29, 32 and 33, marked with 1 notch on the S. and 4 notches on the E. edges, dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, rolling, and mountainous

Soil, sandy loam, 2d. rate.

Mountainous land 2 chs.

East on a random line bet. Secs. 28 and 33.

40.00 Set temp. 1/4 Sec. cor.

79.98 Intersect N. and S. line 12 lks. N. of the cor. of Secs. 27, 28, 33, and 34.

Thence I run

N. 89° 55' W. on a true line bet. Secs. 28 and 33.

Over rolling land.

3.00 Top of hills, bears N. and S. descend hilly land

4.20 Drain, 20 lks. wide, course N.W. ravine 4 ft. deep

22.00 Drain, 25 lks. wide, course N. in ravine 60 ft. deep

30.85 Drain, 20 lks. wide, course N. in ravine

T. 33, R. 12

T. 34, R. 12

T. 35, R. 12

16 Subdivision of T. 35 N., R. 11 W.

Chains.

60 ft. deep. ascend.
38.00 Top of hills. bears N.W. and S.E. thence over rolling land.
39.99 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit. In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
46.00 House of Couch, bears N. 5.00 chs. dist.
51.55 Wagon road. bears N. and S.
51.65 Enter field. near S.E. cor. thence along S. edge of same.
58.45 Leave field. at S.W. cor.
59.83 Wagon road. bears N. and S.
77.00 Top of hills. bears N.E. and S.W. descend.
79.98 The cor. of secs. 28. 29. 32 and 33.
Land, rolling and hilly.
Soil. sandy loam, 2d. rate.

N. 0°03' W. bet. secs. 28 and 29.
Descending over mountainous land.
0.50 Drain, 45 lks. wide. course N.E.
24.55 Same drain. 35 lks. wide. course N.W.
28.40 Same drain, 35 lks. wide, course N.E.
37.50 Same drain. 40 lks. wide. course N.W. ascend.
40.00 Deposit a marked stone 12 ins. in the ground. for 1/4 sec. cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit. In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face.
52.00 Top of ridge. bears N.W. and S.E. thence descend.
70.30 Foot. end drain, 35 lks. wide course N.W.
78.45 Drain, 55 lks. wide. course W. ascend to cor.
80.00 Set a sandstone 13x8x8 ins. 9 ins. in the ground for cor. of secs. 20. 21. 28 and 29. marked with

Subdivision of T. 35 N. R. 11 W. 17

Chains

2 notches on S. and 4 notches on E. edges. dig pits 20x20x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high. W. of cor.
Land. mountainous
Soil. 2d. and 3d. rate.
Mountainous land 80.00 chs.
Aug. 21 st. at this cor. I set off 12°02'.5 N. on the decl. arc, and at 0h 3m p.m. l.m.t. observe the sun on the meridian the resulting lat. is 42° 59'.5. which is 0'.1 greater than the proper latitude

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S. 89°55' E. on a random line bet. secs. 21 and 28.
40.00 Set temp. 1/4 sec. cor.
79.92 Intersect N. and S. line 10 lks. N. of cor. of secs. 21. 22. 27 and 28.
Thence I run
N. 89°51' W. on a true line bet. secs. 21 and 28.
Ascending hills 80 ft.
9.00 Top of hills. bears N.W. and S.E. thence over rolling land.
24.40 N.E. cor. of field. bears S. 50 lks. dist.
25.04 Wagon road. bears N. and S.
25.12 Enter field. bears N. and S.
House of Schamser bears S. 12.00 chs. dist.
39.96 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor. dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base. 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on N. face.
40.77 Drain. 30 lks. wide. course N.
45.00 House of Butchsky bears N. 6.00 chs. dist.
55.62 Leave field. bears N. and S.
59.00 Top of hills. bears N. and S. descend to Cor.

T. 33. R. 12.
T. 34. R. 12.
T. 35. R. 12.

18 Subdivision of T. 35 N., R. 11 W.

Chains

79.92 The cor. of secs. 20. 21. 28 and 29
Land, rolling and hilly.
Soil. 2d. and 3d. rate.

N. 0°03'W. bet. secs. 20 and 21.
Over mountainous land, ascending.
20.00 Top of ridge, bears N.W. and S.E. descend.
35.35 Foot, and drain, 25 lks. wide, course N.W. in brush ravine. ascend.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
52.00 Top of ridge, bears N.W. and S.E. descend 60 ft. to cor.
59.51 Intersect bdy. line bet. S. Dak and Mt. at a point from which the 52d. mile stone, which is a quartzite shaft, 40x10x10 ins. above ground, firmly set, and marked and inscribed as described by the Surveyor General, bears W. 5.44 chs. dist.
Deposit a marked stone 12 ins. in the ground for closing cor. of fract. secs. 20 and 21, dig pits 24x24x12 ins. on each line, S. E. and W. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
C.C. T. 35 N., R. 11 W. on S.
S. 20 on W. and
S. 21 on E faces, with 4 grooves on E. and 2 grooves on W. faces.
Land mountainous
Soil. 2d. and 3d. rate.
Mountainous land 59.51 chs.

Subdivision of T. 35 N., R. 11 W. 19

Chains

From the corner of secs. 30. 31 and 32, on the S. bdy. of the Tp., heretofore described.
I run
N. 0°04'W. bet. secs. 31 and 32.
Over mountainous land.
14.20 Forks of drain, from the S.E. and S.W. thence course N.W.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
47.86 Drain, 40 lks. wide, course N.W.
62.20 Drain, 40 lks. wide, course N.W.
65.20 Drain 50 lks. wide, course N.E.
67.20 Same drain, 50 lks. wide, course N.W.
80.00 Set a sandstone 16x14x5 ins. 11 ins. in the ground for cor. of secs. 29. 30. 31 and 32. marked with 1 notch on S. and 5 notches on E. edges. dig pits 20x20x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft high, W. of cor.
Land mountainous
Soil. sandy. 3d. rate.
Mountainous land 80.00 chs.

East on a random line bet. secs. 29 and 32.
40.00 Set temp. 1/4 Sec. cor.
80.20 Intersect N. and S. line 10 lks. S. of cor. of secs. 28. 29. 32 and 33.
Thence I run
S. 89°56' W. on a true line bet. secs. 29 and 32.
Over hilly land.
0.55 Drain, 20 lks. wide, course N.E.
13.30 Drain. 25 lks. wide, course N.
33.68 Top of ridge. bears N.W. and S.E. descend.

T. 33. R. 12.
T. 34. R. 12
T. 35. R. 12

20 Subdivision of T. 35 N., R. 11 W.

Chains

40.10 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
53.45 Foot. and drain. 30 lks. wide. course N.W. ascend.
74.50 Top of ridge. bears N. and S. descend 50 ft. to cor.
80.20 The cor. of secs. 29. 30. 31 and 32.
Land. hilly.
Soil. sandy. 2d. and 3d. rate.
Aug. 21st. 1895.

West on a random line bet. secs. 30 and 31.
40.00 Set temp. 1/4 Sec. cor.
79.17 Intersect W. bdy. of the tp. 4 lks. S. of the cor. of secs. 25. 30. 31 and 36. meander described.
Thence from
S. 89°58' E. on a true line bet. secs. 30 and 31,
Over mountainous land, descending.
11.77 Foot. and drain. 100 lks. wide course N.E.
37.37 Drain, 45 lks. wide. course N.E. ascend.
39.17 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base. 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
61.20 Top of ridge. bears N.W. and S.E. descend.
72.20 Drain, and foot. 30 lks. wide course N.W. ascend 100 ft. to cor.
79.17 The cor of secs. 29. 30. 31. and 32.
Land. mountainous.
Soil. sandy. 2d. and 3d. rate.

Subdivision of T. 35 N., R. 11 W. 21

Chains

Mountainous land 79.17 chs.

N. 0°04' W. bet. secs. 29 and 30.
Ascending ridge. over mountainous land
28.00 Top of N.W. point of ridge, bears S.E.
Thence descend over ridges.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec cor. dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit.
In S. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
71.60 Foot. and drain, 40 lks. wide, course N.E. in trunk ravine. thence ascend 100 ft. to cor.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 19. 20. 29 and 30. dig pits 20x20x12 ins. in each sec. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked.
T. 35 N., S. 20 on N.E.
R. 11 W., S. 29 on S.E.
S. 30 on S.W. and
S. 19 on N.W. faces. with 2 notches on the S. and 5 notches on the E. edges.
Land. mountainous.
Soil, sandy, 2d. and 3d. rate.
Mountainous land 80.00 chs.
Too cloudy for observation for latitude.

N. 89°56' E. on a random line bet. secs. 20 and 29.
40.00 Set temp. 1/4 Sec. Cor.
80.30 Intersect N. and S. line 6 lks. S. of cor. of secs. 20. 21. 28 and 29.

T. 33 R. 12
T. 34 R. 12
T. 35 R. 12

22 Subdivision of T. 35 N. R. 11 W.

Chains

Thence I run
S. 89°58' W. on a true line bet. secs. 20 and 29.
Over mountainous land, descend 20 ft.
2.30 Foot and drain, 20 lks. wide. course N.W.
ascend
9.30 Top of ridge. bears N.W. and S.E. descend
120 ft.
20.60 Foot and drain, 40 lks. wide course N.W.
Ascend.
32.30 Top of ridge bears N.W. and S.E. descend.
40.15 Drain, 50 lks. wide course N. ascend.
Deposit a marked stone 12 ins. in the
ground for 1/4 Sec. cor. dig pits 24x24x12 ins.
E. and W. of cor. 4 ft. dist and raise a mound
of earth 3½ ft. base, 1½ ft. high, over deposit.
In E. pit drive a stake 2 ft. long, 2 ins. sq.
12 ins. in the ground, marked 1/4 S. on N. face.
48.80 Top of ridge, bears N. and S. descend.
65.80 Foot and drain, 40 lks. wide, course N.E. in
Trail ravine, ascend 120 ft. to cor.
80.30 The cor. of secs. 19, 20, 29 and 30.
Land mountainous.
Soil. 2d. and 3d. rate.
Mountainous land 80.30 chs.

N. 89°58' W. on a random line bet secs. 19 and 30.
40.00 Set temp. 1/4 Sec. cor.
79.03 Intersect W. bdy. of the Tp. 12 chs. S. of the cor. of
secs. 19, 24, 25 and 30., heretofore described.
Thence I run
S. 89°53' E. on a true line bet secs. 19 and 30.
Over rolling land.
2.33 S.W. cor. of field. on line.
12.00 House bears N.
29.43 S.E. cor. of field. bears N. 3.00 chs. dist.
39.03 Deposit a marked stone 12 ins. in the
ground for 1/4 Sec. cor. dig pits 24x24x12 ins.

Subdivision of T. 35 N., R. 11 W. 23

Chains

E. and W. of cor. 4 ft. dist. and raise a
mound of earth 3½ ft. base, 1½ ft. high
over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq.
12 ins. in the ground. marked 1/4 S. on N. face.
41.00 Top of hills. bears N.E. and S.W. descend over
ridges.
44.43 Drain, 40 lks. wide. course N.E.
50.03 Same drain, 40 lks. wide. course S.E.
79.03 The cor. of secs. 19, 20, 29 and 30.
Land, rolling and hilly.
Soil. sandy. 2d. and 3d. rate.

N. 0°04' W. bet. secs. 19 and 20.
Ascending hills 60 ft.
16.00 Top of hills. bears N.W. and S.E. thence
over rolling land.
40.00 Deposit a marked stone 12 ins. in the
ground for 1/4 Sec cor. dig pits 24x24x12 ins.
N. and S. of cor. 4 ft. dist. and raise a
mound of earth 3½ ft. base, 1½ ft. high,
over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq.
12 ins. in the ground. marked 1/4 S. on W. face.
43.20 Wagon road. bears N.E. and S.W.
47.00 Top of hills. bears N.E. and S.W. descend
50 ft. to cor. over ridges.
59.04 Intersect bdy. line bet. S. Dak. and Neb.
at a point from which the 51st. mile
stone, which is a quartzite 2 ft. x 40x10x10
ins. above ground, firmly set, ~~and~~
marked and witnessed as described by the surveyor
general, bears W. 5.09 chs. dist.
Deposit a marked stone 12 ins. in
the ground for closing cor. of fract. secs.
19 and 20. dig pits 24x24x12 ins. on
each line, S.E. and W. of cor. 4 ft. dist.

24 Subdivision of T. 35 N., R. 11 W.

Chains.

and raise a mound of earth 4 ft. base 2 ft. high, over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
C.C. T. 35 N. R. 11 W. on S.
S. 19 on W. and
S. 20 on E. faces, with 5 grooves on E. and 1 groove on W. face.
Land hilly and rolling.
Soil, sandy, 2d. and 3d. rate.
I return to the meridian established Aug 20th from Polaris, At 5h 10m p.m. l.m.t. I set off 11° 40' N. on the decl. arc, and test the adjustment of my solar, finding it gives the same meridian, and adjustments correct.

August 22d 1895

General description.

The larger portion of the surface of this fract. Tp. is very rough, and broken, being cut with deep ravines and high ridges.
The soil in the broken portions is "gumbo," the rolling portion has a sandy loam soil. The surface is mostly covered with a thick growth of wild grasses.
A number of settlers have located on the rolling lands.
There has been considerable timber in the ravines, but it has all been cut off for use at Ft. Randall, and by the settlers on the rolling lands.

Charles H. Bates,
U. S. Deputy Surveyor.

List of Names.

A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the For final oaths of assistants and Deputy see those with the field Notes of Tp. No 35 N. Rg No. 12 West of the 6th principal Meridian Surveyed under this Same Contract and Contained in book lettered "P"

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18

SEAL

6—151

T. 33, R. 12.
T. 34, R. 12
T. 35, R. 12

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....

.....

.....

.....

.....Meridian, in the....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Huron So Dak July 11, 1896.

The foregoing field notes ~~of the survey of~~ Contained in Book lettered "O" of the Survey of the Subdivision lines of fractional Township 35 North of Range No 11 West, (within the abandoned Fort Randall Military Reservation) of the 6th principal Meridian in the State of Nebraska

.....executed by Charles H. Bates under his Contract No. 106, dated March 28th, 18 95, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Richard B. Hughes

U. S. Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above-described surveys in Nebraska, has been correctly copied from the original notes on file in this office.~~

~~Richard B. Hughes~~

~~U. S. Surveyor General.~~

6—151

T.33 R.12.

T.34 R.12

T.35 R.12

(4—679.)

FIELD NOTES

OF THE SURVEY OF

Sub-divisional lines in Fractional Townships 33 North Range 12 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. ....., *dated* May 26, 1890.

Survey commenced August 12th, 1890.

Survey completed August 18th, 1890.

(8780—2,000.) 6—151

T.33.R.12.

T.34.R.12

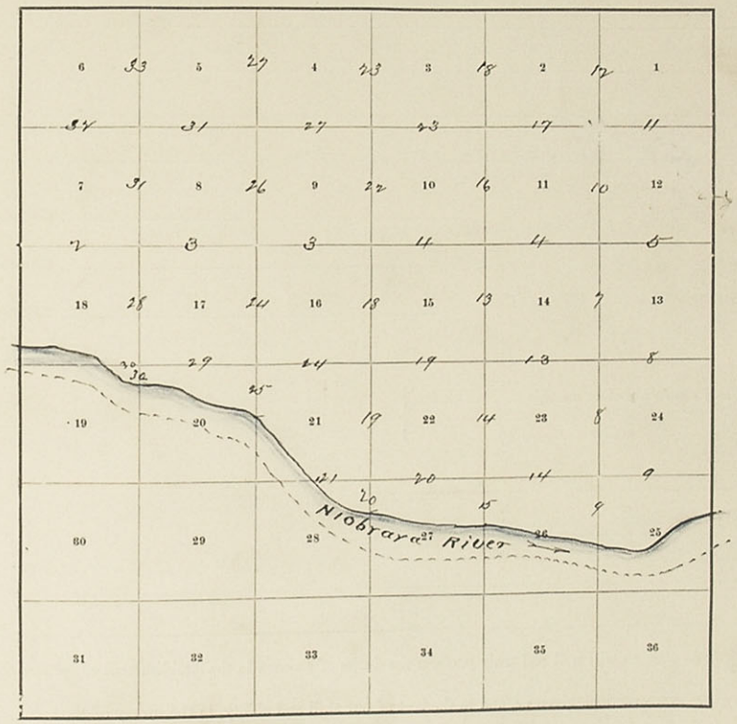
T.35.R.12

Names and Duties of Assistants.

Benjamin H Davidson Chainman
Charles H Paul Chainman
Henry A Burrell Axeman
Summer C Lyle Axeman
Jonathan C Peden Flagman

INDEX DIAGRAM.

Township 33 N., Range 12 W.



Meanders Page 33 to 37

T.33 R.12
T.35 R.12

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

..... , *Axeman.*

..... , *Axeman.*

.....

.....

Subdivision T. 33 N. R. 12 W.

Survey commenced Aug. 12th 1890 with a Burt improved Solar Compass made by Wm J. Young, of Phila., Penn. and numbered 4432

This Township being fractional on the West boundary bet sec 13 and 18 by its intersection with the Niobrara River in sec 18. I run a Provisional base line as follows;

I go to the cor to secs 7, 12, 13 and 18 on the E boundary of the township which is a sandstone firmly set and properly marked and witnesses as heretofore described in the notes of the survey the 8th Standard Parallel North in R. 11 W.

At 7 A.M. I set my instrument over the center of the above described cor. and adjust it to a true meridian which agrees with the line established bet secs 7 & 12 July 27th. which I ascertain by taking a backsight on the cor to secs 1, 6, 7 & 12 which can be plainly seen from this point.

The magnetic bearing of the true meridian thus determined is N. 12° 11' W. which corrected by table on page 55 manual of instructions give for mean local declination 12° 06' E. Thence I run N. on a random line on the Provisional Base Line.

Va. 12° 11' E.

I set temporary half mile and mile cor's. at each 40 and 80 chs. and find the Base Line to be 5 mi. 77 ch and 62 lks. long and the falling to be 42 lks. S. of the cor to secs 7, 12, 13 and 18 on the N. boundary of the Tp. The correction will therefore be for the true line 7 lks. N. per mile & true course S. 89° 57' E.

At 2 P.M. I set my compass over the center of the above described cor. and adjust it to a true meridian by the Solar apparatus. The true meridian thus found has

T.33 N. R.12 W.

Subdivision T. 33 N. R. 12 W. Continued

chains a magnetic bearing of N. 12° 15' W. which corrected by table on page 56 manual of instructions gives for mean local declination 12° 21' E.

From the cor to secs 7. 12. 13 and 18 on the W boundary which is a hard sandstone firmly set and properly marked and witnessed as heretofore described in the notes of the survey of the exterior boundaries of T. 33 N. R. 12 W.

I run.

S. 89° 57' E. on a true line bet Secs 7 and 18
Va. 12° 15' E.

Over rough rolling ground.

10.80 Ravine course S.
16.20 Ravine course S.
28.00 Top of ridge bears N. and S.
34.90 Ravine course S.E. 50 ft deep
39.62 On Top of ridge 40 ft above bottom of ravine
Set a hard sandstone 18 x 12 x 4 ins. 12 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E. and W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside. Descend.
46.80 Ravine course S. 40 ft deep. ascend.
52.00 Top of ridge bears N. and S.
63.00 Ravine course S. 40 ft deep.
78.00 Top of ridge bears S.E. and N.W. Descend
79.62 About 1/3 down east slope of ridge
Set a hard sandstone 24 x 6 x 3 ins - 18 ins. in the ground for cor to secs 7. 8. 17 and 18 marked 4 notches on S. edge a 5 notches on E. face dug pits 18 x 18 x 12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land rolling and broken by deep ravines
Soil a grey colored clay 3rd rate. good for grazing only
No timber

At 2.45 P. M. local attraction has deminished Va 3'

Subdivision T. 33 N. R. 12 W. Continued

chains S. 89° 57' E. on a true line bet secs 8 and 17
Va. 12° 12' E.

Over rough broken ground.

2.70 Ravine course S. 20 ft below cor.
5.60 Ravine course S.E.
5.80 Ravine course S.
11.10 Gulch course S.
23.00 Top of bluffs - divide bet Niobrara River and Ponca creek Slope bears N. + S.
24.95 Divide wagon road bears N. + S. gradual descent
40.00 Set a hard sandstone 18 x 8 x 4 ins. 12 in in the ground for ¼ Sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins E. + W. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside.
66.30 South bend of ravine course S.E. thence N.E.
67.50 Same ravine course S.E. 5 ft deep
79.00 Ravine course S.E. 5 ft deep
80.00 Set a hard sandstone 16 x 8 x 6 in 11 ins in the ground for cor to secs 8. 9. 16 and 17 marked 4 notches on S. edge and 4 on E. face dug pits 18 x 18 x 12 in in each sec 5½ ft dist raised a mound of earth 2 ft high 4½ ft base alongside
Land gentle rolling table land and rough broken hills
Soil in hills light colored clay 3rd rate
On table-land dark clay loam 1st rate
No timber

At 3.30 P. M. diurnal change has increased Va 2'
S. 89° 57' E. on a true line bet secs 9 and 16
Va. 12° 14' E.

Over rolling table-land

40.00 Set a hard sandstone 18 x 12 x 4 ins. 12 in in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 in E. + W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
80.00 Set a hard sandstone 20 x 12 x 4 ins 15 ins. in the ground for cor to secs 9. 10. 15 + 16 Marked 4 notches on S. edge and 3 on E face. dug pits 18 x 18 x 12 in in each sec 5½ ft dist and raised a mound

T. 34, R. 12

T. 35, R. 12

Subdivision T. 33 N. R. 12 W. Continued

chains of earth 2 ft high 4½ ft base. alongside
Land gently rolling Soil 1st rate clay loam
Grass, buffalo and blue joint
No timber

At 3.45 P. M. local attraction has deminished Va 3'
S. 89°59' E. on a true line bet secs 10 and 15.
Va. 12° 11' E.

Over rolling table land
25.05 Ravine course N.E. 8 ft deep.
40.00 Set a hard sandstone 16 x 9 x 4 ins 11 ins in the ground for ¼ sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins E. + W. of stone 5½ ft dist and raised a mound of stone 1½ ft high 3½ ft base. alongside
45.00 Spring bog 1 ch N. of line.
49.35 Foot of spring bog N. of line.
53.00 Ravine course N. 20 ft lower than top of hill.
79.80 Drain 3 ft deep course N. deep hole 10 ft N.
80.00 Set a hard sandstone 24 x 14 x 3 ins 18 ins in the ground for cor to secs 10. 11. 14 and 15. marked 4 notches on S edge and 2 on E. face dug pits 18 x 18 x 12 ins in each sec 5½ ft dist. and raised a mound of earth 2 ft high 4½ ft base. alongside. Land rolling.
Soil clay loam 1st rate farm land bet ravines in ravines good hay can be cut
No timber.

At 4.30 P. M. Local attraction has deminished Va 2'
Diurnal change has increased Va 2'
S. 89°57' E. on a true line bet secs 11 and 14.
Va. 12° 11' E.

Over rolling surface
18.80 Ravine course N.E.
40.00 Set a hard sandstone 16 x 10 x 4 ins. 11 ins in the ground for ¼ sec cor. marked ¼ on N. face dug pits 18 x 18 x 12 ins E. + W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
49.10 Ravine 40 ft deep small hole of water on line

Subdivision T. 33 N. R. 12 W. Continued

Chains
71.60 Ravine course N.W. 40 ft deep
79.00 Ravine 10 ft deep course N.W.
80.00 Set a hard sandstone 16 x 12 x 4 ins. 11 ins. in the ground for the cor to secs 11. 12. 13 and 14 marked 4 notches on S. and 1 on E face. dug pits 18 x 18 x 12 ins in each sec 5½ ft dist. and raised a mound of earth 2 ft high 4½ ft base alongside
Land rolling and broken on E. ½
Soil clay loam W ½ first and E ½ 2nd rate
No timber

At 6. P. M. Local attraction has decreased Va. 2'
Diurnal change has increased Va 2'.
S. 89°57' E. on a true line bet Secs 12 and 13
Va. 12° 11' E.

Over rolling ground
14.70 Ravine course N.W.
22.60 Road bears N and S
40.00 Set a sandstone 16 x 10 x 4 ins. 11 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E. + W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside
54.00 Ravine course N. 40 ft deep.
77.60 Wagon road N.W. and S.E.
78.00 Top of hill bears N.W. and S.E. Descend to.
80.00 The cor to secs 7. 12 13 and 18
Land rolling clay loam 1st rate farm land bet ravines. good grass for hay in ravines.
No timber Aug 12th 1890.

At the cor to secs 7. 12. 13 and 18 on the E boundary
I observe polaris on the night of Aug 12th 1890
Latitude 42°-50' N Long 98°40' W in accordance with instructions contained in the manual on page 72 at 7h. 59 m. P. M.
I find the Magnetic bearing of the star to be N. 10°38' E.
Astronimical local mean time by Watch
Aug 12th 1890 - 7h. 59 m.
Watch fast subtract 4'
Correct local M.T. of Obs. Aug 12th 7 - 55

T. 34, R. 12
T. 35, R. 12

Subdivision T. 33 N. R. 12 W. Continued

Local M.T. U.C. of Polaris Table I Aug 15th
15-40.1

Reduction for 4 da sub.	15.7 - 15.	55.8
Which taken from hour of Obs. leaves the hour angle of Polaris	15.	59.2
Subtract from	23	56.1
Argment for table II	7.	56.9
Azimuth of Polaris for Lat 43°	1°	29' E.
North end of needle	10°	38' E.
The sum is the Va	12°	07' E.

It is also the mean declination by table in the manual on page 56.

I lay off the azimuth 1° 34' to the W. and mark the true meridian so found.

Aug. 12th 1890.

Aug. 13th 1890. having compared my measuring chain with the Standard chain. This A.M. I go to the cor to secs 7. 12. 13 and 18 on E. boundary and set my compass over the center of the cor and adjust it to a true meridian by the Solar apparatus which agrees with the line established last night and with line established bet secs 7 and 12. The magnetic bearing of the true meridian established is. N 12° 11' W. which corrected by table on pg 55. of manual gives for mean declination 12° 07' E. (at 6. A. M.) From the cor to secs 7. 12. 13 and 18 I run S. on the E. boundary of Sec. 13.

Va. 12° 11' E.

At 40.00 find ¼ sec cor and 80.01 find the cor to secs 13. 18. 19 and 24. The bearing of the range line is therefore South. I now return to the cor to secs 7. 12. 13 and 18 and again take the magnetic bearing of the range line which I find to be N. 12° 13' E. at 7 A. M. Thence I run N. 89° 57' W. along S. boundary of sec 12 on the Provisional Base Line

Va. 12° 13' E.

Subdivision T. 33 N. R. 12 W. Continued

chains

At 40.01 find ¼ sec cor and at 80.03 sec cor. to 11. 12. 13 and 14 on line. The true course of the Base Line on S boundary of sec 12 is therefore as above stated.

Note - I run the blank line S. on the Range line on the E. boundary of sec 13 because the ground is smooth and nearly level. - On the E side of the ground is some broken

I commence at the cor to secs 11. 12. 13 and 14 on the Provisional Base Line. At 7.30 A.M. I set my compass over the cor and adjust it to a true meridian by the Solar apparatus The magnetic bearing of the true meridian is N. 12° 15' W. which corrected by table on page 55 of the manual of instructions gives 12° 09' E.

Thence I run

S 0° 1' E. bet secs 13 and 14

Va. 12° 15' E.

Over rolling ground

1.60 Ravine 6 ft lower than cor course N.W.

29.45 Ravine 10 ft deep course N.W.

40.00 Set a sandstone 16 x 8 x 4 ins 11 ins in the ground for ¼ sec cor marked ¼ on W face dug pits 18 x 18 x 12 ins. N. and S. of stone 5 ft dist raised a mound of earth 1½ ft high 3½ ft base along.

57.00 Ravine course N.W. 10 ft deep

80.00 Set sandstone 18 x 10 x 4 ins 12 ins in the ground for cor to secs 13 14. 23 and 24 Marked 3 notches on S edge and 1 on E. face. dug pits 18 x 18 x 12 ins in each sec 5 ft dist and raised a mound of earth 2 ft high 4½ ft base, alongside

Land rolling Soil clay loam

Grass buffalo and blue joint No timber

S. 89° 57' E. on a random line bet Secs 13 and 24

Va. 12° 15' E.

40.00 Set temporary ¼ sec cor

80.00 Intersect the E. boundary of the Tp. 13 lks N. of the cor to secs 13. 18. 19 and 24. which is a sandstone firmly set and properly marked and witnessed as heretofore described in the notes of exterior boundaries of T. 33 N. R. 12 W.

Thence I run

T. 34, R. 12

T. 35, R. 12

Subdivision T. 33 N. R. 12 W. Continued

chains

N. 89°51' W. on a true line bet secs 13 and 24
With same Va.

Over gently rolling prairie

40.00 Set a hard sand-stone 16×10×3½ in. 11 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18×18×12 in. E. and W. of stone 5² ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

47.45 Wagon road bears N. and S.

80.00 The cor to secs 13. 14. 23 and 24.

Land gently rolling Soil clay loam 1st rate
Grass buffalo wire and blue joint
No timber

At 9 A. M. Diurnal change has deminish'd Va 3'
S. 0° 1' E. bet secs 23 and 24.
Va. 12° 12' E.

Over gently rolling table land.

18.75 Divide road bears E. and W.

40.00 Set a hard sandstone 18×12×4 ins. 12 ins in the ground for ¼ sec cor. marked ¼ on W. face dug pits 18×18×12 ins N. and S. of stone 5² ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside

68.73 Wire fence inclosing farm of E. W. Whiting bears S. 72° E. and N. 72° W.

80.00 Set a hard sandstone 18×12×4 ins. 12 ins in the ground for cor to secs 23. 24. 25 and 26. marked 2 notches on S. edge and 1 on E. face dug pits 18×18×12 ins. in each sec 5² ft dist and raised a mound of earth 2 ft high 4½ ft base. alongside
This cor is in cultivated field

Land - Table land clay loam
1st rate.
Slope is light clay soil on the first 20.00 chs. S 20.00 chs is black soil on gentle slope of hills.

The cultivated land of E. W. Whitney shows the co soil capable of producing excellent crops of corn small grain and vegetables
No timber.

Subdivision T. 33 N. R. 12 W. Continued

chains

At 9.30 A. M. Local attraction has increased Va 2'
S 89°57' E. on a random line bet secs 24 and 25
Va. 12° 14' E.

40.00 Set temporary ¼ sec cor.

80.06 Intersect the E. boundary of the Tp. 21 lk. N. of the cor to secs 19. 24. 25 and 30. which is a sandstone firmly set and properly marked and witnessed as heretofore described in the note of survey of exterior boundaries of T. 33 N. R. 12 W.

Thence I run
N. 89°48' W. on a true line bet secs 24 and 25
With same Va.

Over rolling foot hill of S. slope

1.30 Ravine course S 6 ft deep

5.05 Ravine course S.E. 6 ft deep

28.25 Wagon road bears N.W. and S.E.
Enter smoother ground

40.03 Set a hard sandstone 20×10×4 ins. 15 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18×18×12 ins. E. and W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

45.05 Wire fence inclosing farm of E. W. Whiting bears N. 72° W. and S. 72° E.

67.75 Ravine course S. 5 ft deep.

80.06 The cor to secs 23 24. 25 and 26

Land rolling
Soil E. 30 chs clay 2" rate W. 50 chains
Dark clay loam 1" rate.

At 10.30 A. M. Diurnal change has deminished Va 4'
S. 0° 1' E. bet secs 25 and 26
Va. 12° 10' E.

Over gently descending ground cultivated fields

26.80 Wire fence on S side of field bears E. and W.

27.65 Foot of bank 10 ft high and enter low bottom bears E. & W.
Enter brush and scattering trees.

40.00 Set a sandstone 16×10×4 ins. 11 ins in the ground for ¼ sec cor. marked ¼ on W. side dug pits 18×18×12 in. N. and S. of stone 5² ft dist and raised a mound of earth ½ ft

T. 34, R. 12

T. 35, R. 12

Subdivision T. 33 N. R. 12 W. Continued

chains 3½ ft base, alongside

55.70 Intersect the left bank of Niobrara river bank sandy 4 ft high set a sandstone 16 x 12 x 4 ins. 11 ins in the ground for meander cor to fract'l secs 25 & 36 marked M.C. on S face dug a pit 36 in sq 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside, from which A. White willow 6 in diam. bis N 62½° E 20 lks dist. No other trees within limit. I mark bearing tree B.T. M.C. S. 25.

Land gentle S. descent over cultivated land to low bottom Soil is black clay loam 1st rate.

Low bottom is sandy - level - covered with small willow and young cottonwood brush and scattering cottonwood trees 3rd rate.

To connect the above meander cor with the meander cor bet 25 and 26 on the S. bank of the river. I go to the cor to secs 25. 26 - 35 and 36 The original line was run at a Va. 13° 20' E. I subtract 1° 16' E. for decrease in Va in 19 yrs which gives for Va at this time 12° 04' E. and at 4. 20 chs intersect the right bank of Niobrara R. which takes from the original distance to the river as per notes furnished by the general office - 5.00 chs leaves 80 lks which has been washed away by the river There are large trees along the line to the river bank I find no trees marked for bearing trees The meander cor being lost I am unable to connect it with the meander cor on left bank.

//

At 4 P. M Aug 13th I return to the cor to secs 11. 12. 13 and 14 on the Provisional Base Line and set my compass over the cor I find the line bet secs 13 and 14 has a magnetic bearing of S. 12° 06' E. The mean Va is 12° 09' E.

N 0° 1' W bet secs 11 and 12

Va 12° 06' E.

Over rolling ground.

10.00 Begin descending.

Subdivision T. 33 N. R 12 W. Continued

chains

21.00 Ravine course N.W. Ascend

28.00 Top of ridge 30 ft higher than ravine NW & SE descend

40.00 Set a sandstone 15 x 10 x 4 ins. 10 ins in the ground for ¼ sec cor marked ¼ on W face dug pits 18 x 18 x 12 ins N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

52.50 Enter valley bears N.E. and S.W.

53.75 Ravine 3 ft deep course N.E.

72.75 Ravine or dry creek course E

77.75 Leave valley and ascend bluffs bears E. and W.

80.00 Set a sandstone 16 x 10 x 5 ins 11 ins. in the ground for cor to secs 1. 2. 11 and 12 marked 5 notches on S edge and 1 on E. face dug pits 18 x 18 x 12 in in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land S½ rolling 2d rate N½ clay soil 1st rate No timber

S. 89° 57' E. on a random line bet secs 1 and 12

Va. 12° 06' E.

40.00 Set temporary ¼ sec cor.

79.92 Intersect the E. boundary of the Tp 8 lks S of the cor to secs 1. 6. 7 and 12 which is a sandstone firmly set and marked and witnessed as hertofore described in the notes of survey of exterior boundaries of T. 33 N. R. 12 W.

Thence I run.

W. on a true line bet secs 1 and 12

With same Va.

Over level valley.

4.95 Ravine course N.E.

36.42 Wagon road bears N.E. and S.W.

37.90 Leave valley and enter foot hills of divide bis N.E. & S.W.

39.96 Set a sandstone 16 x 8 x 5 - 11 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 - E. & W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

46.00 Leave foot hills & enter creek valley bears N.W. & S.E.

50.70 Small pond in dry creek course N.E.

52.00 Same dry creek course S.E.

64.90 Same dry creek course N.E.

67.90 Leave valley and enter foot hills bears N.E. & S.W.

79.92 The cor to secs 1. 2. 11 and 12.

Subdivision T. 33 N. R. 12 W. Continued

chains Land valley level last clay loam 1st rate
fort hill mixed clay and sand 2nd rate.
No timber except a few willow trees on the Dry creek

At 5.30 P.M. Diurnal change has increased Va 2'
N. 0° 1' W. on a random line bet secs 1 and 2
Va. 12° 08' E.

40.00 Set temporary ¼ sec cor
80.15 Intersect N. boundary of Tp 25 lks E of cor to secs 1. 2. 35 and 36 which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of exterior boundaries of T. 33 N. R. 12 W.
Thence I run
S. 0° 10' E. on a true line bet secs 1 and 2.
With same Va.
Over level valley.
10.90 Ponca creek bank 8 ft high 50 ft wide water in channel 13 lks wide 6 in deep N.E. enter brush & timber
11.55 Leave valley and enter bluffs bears E and N.
13.00 Leave brush and timber
30.95 Road bears N.E. and S.W.
40.15 Set a sandstone 16 x 8 x 4 - 11 ins - in the ground for ¼ sec cor marked ¼ on W face dug pits 18 x 18 x 12 in. N. and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. An oak 8 in diam bears S 75½° W. Cut X cut & dug marked C.B. B.T.
43.55 Spring branch 3 lks wide 6 in deep runs E.
46.65 Top of ridge bears N.E. and S.W.
63.75 Ravine course S.E.
80.15 The cor to secs 1. 2. 11 and 12.
Land valley level. hills rolling and broken
Soil in valley 2nd rate hills sandy 2d rate.
Timber there is willow, box elder, cottonwood. and Ash along creek. S. of creek some oak
Along the spring branch there is some oak scattering
Aug 13th 1890.

Aug 14th 1890
At 6 A.M. I set my compass over the cor to secs 10. 11. 14 & 15 on the Provisional Base Line and adjust it to a true meridian is N. 12° 15' W. which corrected by

Subdivision T. 33 N. R. 12 W. Continued

chains table on page 55 of manual gives for mean declination 12° 11' E.
Thence I run.
S. 0° 2' E. bet secs 14 and 15
Va. 12° 15' E.
Over rolling ascending ground.
90 Drain 3 ft deep course N.W.
40.00 Set a sandstone 15 x 12 x 3 ins. 10 ins. in the ground for ¼ sec cor marked ¼ on W face dug pits 18 x 18 x 12 in N. and S. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside
52.50 Ravine 5 ft deep course N.W.
80.00 Set a hard sandstone 14 x 8 x 5 in. 9 ins. in the ground for cor to secs 14. 15. 22 and 23 dug pits 18 x 18 x 12 in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base. alongside.
Land gently rolling and ascending from the N.
Soil clay loam 1st rate. grass is buffalo. wire and blue joint.
No timber

S. 89° 57' E. on a random line bet secs 14 & 23
Va. 12° 15' E.

40.00 Set temporary ¼ sec cor.
79.96 Intersect the N. & S. line 6 lks S of the cor to secs 13. 14. 23 and 24.
Thence I run
West on a true line bet secs 14 and 23
With same Va
6.60 Ravine course N.W. 3 ft deep
13.75 Drain course N.W. 2 ft deep
39.98 Set a sandstone 16 x 11 x 5 in. 10 ins. in the ground for ¼ sec cor marked ¼ on W. face dug pits 18 x 18 x 12 ins E. & W. stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
79.96 The cor to secs 14. 15. 22 and 23.
Land rolling
Soil clay loam 1st rate farm land
No timber

T. 34 R. 12
T. 35 R. 12

Subdivision T. 33 N. R. 12 W Continued

chains S. 0° 2' E. bet secs 22 and 23.
Va. 12° 15' E.

Over level table land

7.00 Divide road bears E and W.

10.00 Begin descending S slope of divide bears E. + W.

20.60 Ravine course S.E.

27.70 Ravine course S.E.

40.00 Set sandstone 15 x 10 x 4 ins. 10 ins. in the ground for ¼ sec cor. marked ¼ on N face dug pits 18 x 16 x 12 ins. N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base, alongside.

60.00 Foot of slope thence over undulating 2nd bottom bears E and W.

80.00 Set a hard sandstone 16 x 8 x 6 ins 11 ins. in the ground for cor to secs 22 23 26 and 27 marked 2 notches on S. edge and 2 on E face. dug pits 18 x 16 x 12 ins. in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land varied. Table land level - Soil is clay loam 1st rate.

S. slope is clay 3rd rate farm land good grazing land

2nd bottom is undulating clay land 1st rate but now covered with prairie dog town.

No timber

Apr. 8. A. M. diurnal change has increased Va. 2'

S. 89° 57' E on a random line bet Secs 23 and 26
Va. 12° 17' E.

40.00 Set temporary ¼ sec cor

80.02 Intersect N. and S. line 5 lks S of the cor to secs 23 24 25 and 26.

Thence I run

N. 89° 59' W on a true line bet secs 23 and 26
With same Va.

Over gently rolling 2d bottom.

11.80 Wire fence inclosing farm of E. W. Whiting bears N. and S.

13.57 Ravine course S. 5 ft deep.

40.01 Set a hard sandstone 14 x 8 x 6 ins. 9 ins. in the ground for ¼ sec cor. marked ¼ on N face dug pits

Subdivision T. 33 N. R 12 W. Continued.

chains 18 x 18 x 12 ins. E. and W. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base alongside

60.50 Ravine 5 ft deep course S.E.

80.02 The cor to secs 22 23 26 and 27.

Land gently rolling

Soil clay land 1st rate.

From 35 ch N of ravine at 19.50 ch scattering prairie dog town W of ravine is an old village. The cultivated field of E. W. Whiting extends into sec 26. from 11 and 12 ch on the E. side.

No timber

S. 0 02' E. bet secs 26 and 27
Va. 12° 17' E.

Through prairie dog town over undulating ground

7.50 S. edge of hill second bottom and descend high steep bank bears E and W.

9.50 Foot of the high bank (30 ft) and enter first bottom bears E and W.

Over level valley

35.00 Intersect the left bank of Niobrara R. bank 4 ft high and sandy bears S. 80° W. and N 85° E.

Set a sandstone 16 x 10 x 3 ins. 9 ins in the ground for meander cor to fractional secs 26 and 27 marked M C on S face dug a pit 36 ins sqr 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside.

Soil on table clay loam 1st rate but undesireable on account of prairie dog town

Valley is sandy 3rd rate good grazing

There are a few scattering cottonwood trees in the valley no brush along the river bank

To connect the above meander cor with the meander cor bet fract'l secs 26 and 27 on the S. bank of river on previous survey. I goto the cor to secs 26. 27. 34 and 35. mound and pits plain with piece of old stake in mound and run N. bet fract'l secs 26 and 27. Va. in original survey is 13° 20' E. I subtract diminished Va for 17 yrs 1° 16' which gives for Va at this time 12° 04' E

T.33 R.12
T.33 R.12

Subdivision T. 33 N. R. 12 W. Continued

chains At 14.40 ch. intersect right bank of Niobrara River. I find no sign of a meander cor and no trees marked for bearing trees although there are a number on the bank of river. The distance to the river according to the notes of original survey 14.50 chs; 10 lks of the bank has therefore been washed away by the river. I however set my flag on the left bank on a continuation of the line already run and chain across the river; 32.00 chs which added to the 14.40 chs distance to the river making 46.40 chs to a point 11.64 chs N. of the M.C. bet fractl secs 26 and 27 on the left bank of river. The above distance of Latitude added together make 81.40 chs

subtract 80.00

Excess 1.40 Chs

At the meander cor to fractional secs 26 and 27 at 12. M. observe latitude and find it to be N. 42° 48' Aug 14. 1890.

At 6 A.M. Aug 15th. I go to the cor to secs 10. 11 14 & 15 on the Provisional Base Line and with my compass placed on the cor. I adjust it to a true meridian by the Solar Apparatus. the line so determined has a magnetic bearing of N. 12° 15' W. the Va 12° 15' E which corrected for mean declination by table on page 55 gives 12° 11' E.

N. 0° 2' W bet secs 10 and 11

Va 12° 15' E.

Over rolling ground

10.00 Bend of ravine course N.E. then N.W.

20.20 Same ravine 8 ft deep course E

40.00 Set a hard sandstone 16 x 10 x 4 ins 11 ins in the ground for ¼ sec cor marked ¼ on N face dug pits 18 x 18 x 12 ins. N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base, alongside

70.00 Enter dry creek valley bears N.E. and S.W.

71.00 Dry creek water in holes course E.

78.00 Leave valley and ascend hill bears N.E. and S.W.

80.00 Set a hard sandstone 16 x 12 x 5 ins. 11 ins in the ground for cor to secs 2. 3. 10 and 11 marked 4 notches on S. and 2 on E face dug pits 18 x 18 x 12 ins. in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base

Subdivision T. 33 N. R. 12 W. Continued

chains alongside

Land - S 20 chs along ravine Soil clay loam 2nd rate. The next 20 chs is undulating clay land 1st rate. N 20 chs broken by dry creek 2nd rate. In the valley is good grass for hay.

No timber

S. 89° 57' E. on a random line bet secs 2 and 11

Var 12° 15' E.

40.00 Set temporary ¼ sec cor

80.12 Intersect the N. & S. line 10 lks S of cor to secs 1. 2. 11 & 12

Thence I run

S 89° 57' W. on a true line bet secs 2 and 11

With same. Va.

Over narrow valley

9.00 Leave foot hills and enter valley bears N.W. & S.E.

10.00 A dry creek course S.E.

22.10 Sharp edge of point of S bluff bears N.E. & S.W.

22.51 Same dry creek course N.E.

35.50 Same dry creek, pond of clear fresh water on line 60 lks wide course S.E. fish in pond

38.00 Leave valley and ascend point of N. slope of S. bluff bears N.W. and S.W.

40.06 Set a hard sandstone 16 x 11 x 4 ins 11 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 10 ins. E. and W. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside

41.50 Same dry creek course N.E. Enter valley. Leave point of slope bears N.E. and S.W.

44.90 Same dry creek course S.E.

61.40 Same dry creek course N.

63.00 Same dry creek " S.E.

70.85 Same dry creek course N.E.

72.10 Leave valley and ascend bluff bears N.E. & S.W.

80.12 The cor to secs 2. 3. 10 & 11

Land undulating narrow creek valley broken by creek bluffs

Soil black clay loam 1st rate. There is fine grass for hay

Timber - Some willow brush in small clumps along the creek mostly on the S. side of valley against the bluffs in sec 11. There are some fine deep ponds of water along creek containing fish

Subdivision T. 33 N. R. 12 W. Continued

chains. At 7.30 P.M. diurnal change has increased Va. 3'.
N. 0° 2' W. on a random line bet secs 2 and 3
Va. 12° 18' E.

40.00 Set temporary ¼ sec cor.
80.10 Intersect the N. boundary of the P. 6 Cks. W. of the cor to secs 2. 3. 34 and 35. which is a hard sandstone firmly set and marked and witnessed as heretofore described in the notes of exterior boundaries of T. 33 N. R. 12 W.
Thence I run
S. 0° 1' W. on a true line bet secs 2 and 3.
With same Va
Over rolling table-land
32.90 Ravine course E. 30 ft deep
37.60 Ravine course N.E. 30 ft deep.
40.10 Set a sandstone 13×9×4½ ins. 8 ins. in the ground for ¼ sec cor marked ¼ on W face dug pits 18×18×12 ins N. and S. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base
75.40 Ravine course S.E. 15 ft deep ascend.
78.60 Top of hill descend
80.10 Cor to secs 2. 3. 10 and 11
Land rough and broken by the two large ravines in N.
Soil is clay loam 3d rate farm land good for grazing
S. is smoother clay loam 2d rate.
No timber

At 10 A.M. Aug 15th I set my compass over the cor to secs 9. 10. 15 and 16. on the Provisional Base Line. and adjust it to a true meridian by the Solar Apparatus. The magnetic bearing of the true meridian is N. 12° 17' W. which corrected by table on page 55 gives for local mean declination 12° 15' E.
Thence I run
S. 0° 3' E. bet secs 15 and 16
Va. 12° 17' E.
Over rolling ascending table land
37.50 Ravine course N.E. 8 ft deep
40.00 Set a sandstone 15×10×4 ins, 10 in the ground for ¼ sec cor marked ¼ on W. face dug pits 18×18×12 ins N. and S. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside.
49.00 Drain 5 ft deep course N.W.

Subdivision T. 33 N. R. 12 W. Continued

chains.
71.90 Divide road bears E. and W.
74.00 Leave table land and descend S. slope of Divide E. & W.
77.55 Short gulch 10 ft deep course S.W.
80.00 Set a sandstone 18×14×5 ins. 12 ins. in the ground for cor to secs 15. 16. 21 and 22 marked 3 notches on S. and 3 on E. faces dug pits 18×18×12 ins in each Sec 5½ ft dist. and raised a mound of earth 2 ft high 4½ ft base alongside. cor 15 ft lower than top of hill.
Land on table rolling clay loam 1st rate.
Grass - buffalo. wire and bluejoint - No timber

S. 89° 57' E. on a random line bet Secs 15 and 22
Va. 12° 17' E.
40.00 Set temporary ¼ sec cor
80.00 Intersect the N. and S. line at cor to Secs 14. 15. 22 and 23
Thence I run
N. 89° 57' W. on a true line bet Secs 15 and 22
With same Va.
Over undulating prairie
40.00 Set a hard sandstone 14×10×4 ins. 9 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18×18×12 ins. E. and W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base, alongside
49.55 Divide road bears N.W. and S.E.
76.50 Top of divide bears N.W. and S.E. descend to W.
80.00 The cor to secs 15. 16. 21 and 22.
Land gently rolling Soil clay loam 1st rate
No timber.

At 11.30 A.M. Diurnal change has decreased Va. 6'
S. 0° 03' E. bet Secs 21 and 22
Va. 12° 12' E.

Along W. slope of hill descending.
17.20 Ravine course W. thence over rolling ground
40.00 Set a hard sandstone 20×10×5 ins. 15 ins. in the ground for ¼ sec cor. marked ¼ on W. face dug pits 18×18×12 ins N. and S. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside.
40.25 Ravine 10 ft deep course S.W. here leave hill and

Subdivision T. 33 N. R. 12 W. Continued

Chains enter high bottom bears E and W over gently descending ground.

70.00 Begin descend to 2d bottom bears E and W.

80.00 Set a hard sandstone 20 x 15 x 4 ins. 15 ins. in the ground for cor to Secs 21. 22. 27 and 28 Marked 2 notches on S. edge and 3 on E. face dug pits 18 x 18 x 12 in in each Sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land rolling and S slope Soil N. clay 2d rate S. clay 1st rate.

No timber

S. 89°57' E. on a random line bet Secs 22 and 27
Va 12° 12' E.

40.00 Set temporary ¼ sec cor.

79.90 Intersect the N. and S. lines 9 lks S. of the cor to Secs 22 23. 26 and 27. Thence

I run

S. 89°59' W. on a true line bet Secs 22 and 27
With same Va.

Over gently rolling ground.

4.90 Edge of bank of high bottom bears N. W and S. E.

9.90 Descend gradually 20 ft to 2d bottom.

Enter 2nd bottom bears N. W and S. E.

39.95 Set a hard sandstone 14 x 12 x 4 ins. 9 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 14 in. E. and W. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside

~~Enter 2d bottom bears N. W and S. E.~~

79.90 The cor to Secs 21. 22 28 and 27.

Land E 20 chs rolling clay loam 2d rate.

On E. 5 chs on high bottom is prairie dog town.

W. 60 chs undulating 2d bottom clay loam 1st rate

Grass is buffalo and bluejoint No timber

S. 0° 03' E. bet Secs 27 and 28.
Va. 12° 12' E.

Over descending ground.

6.50 Leave 2d and enter 1st bottom bears E and W.

15.05 Intersect the Left bank of Niobrara River bank 5 ft high sandy

Set a sandstone 16 x 12 x 4 ins. 11 ins. in the ground for M.C.

Subdivision T. 33 N. R. 11 W. Continued

Chains to fractional Secs 27 and 28 marked M.C. on S. face dug a pit 36 in sqr 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside from which

A. Cottonwood 20 in. diam. bos N. 7°50' W. 214 lks dist marked B. T. M.C. S. 28. T. 33 R. 12 W.

Land rolling - 2d bottom clay soil 1st rate first bottom sandy 3d rate.

Timber scattering cottonwood trees along 1st bottom

To connect the above meander cor with the M.C. of previous survey on the right bank of Niobrara River. I go to the cor to secs 27. 28. 33 and 34 which is a mound of earth with pits in each Sec. The Va at which the line bet Secs 27 & 28 was run was 13°20' E from this I subtract 1°16' E. dif. for 19 yrs which leaves 12° 04' E.

Thence I run

North bet Secs 27 and 28 on random line.
Va 12° 04' E.

16.00 chs. Enter bluffs

21.00 " Leave bluffs bears E. and W.

22.30 " Distance to M.C. on River bank according to the notes furnished of original survey. I find no trace or sign of post mound or pits or bearing tree. There are no trees or stumps in this vicinity. I continue the line N. and at 25.45 chs intersect Right bank of Niobrara river. I search for M.C. at this point also but without success. The river is wide at this point with a number of small islands I am unable to connect the Meander cor's. on the opposite banks of river.

Knowing that line bet secs 21 and 28 will strike Niobrara River at less than 80 chs from the Coor to Secs 21. 22 27 and 28

I run

N. 89°57' W. on a true line bet Secs 21 and 28
Va 12° 12' E.

Over gently rolling ground.

4.50 Wire fence inclosing fields Widow Herman a Sioux Indian squaw.

Subdivision T. 33 N. R. 12 W. Continued

Chains
27.40 Spring at head of bayou from river runs S.
29.60 Intersect the left bank of Niobrara River at foot of 2d bottom bank 8 ft high 1st bottom about 15 lks wide
Set a sandstone 12 x 12 x 5 in. 8 in. in the ground for meander cor to fractional Secs 21 and 28 marked M.C. on W. face dug a pit 36 in. sqr. 1 ft deep 8 lks E. of stone and raised a mound of earth 2 ft high 4½ ft base alongside from which
An Elm 18 ins. diam. bears S. 59° E. 123 lks dist. marked B.T. M.C. S.28 T.33 N. R.12 W.
Land gently rolling Soil dark clay loam 1st rate.
Timber Box Elder Willow and Cottonwood trees along 1st bottom, plum brush along 2d bottom.
Mrs. Herman Indian squaw (Widow) lives in N.E. cor of Sec. 28 She has about 20 acres in crops in Sec 21 and 28. house bears S. 45° W. about 2 ch. dist. Aug. 15. 1870.

At 6 A. M. Aug 16th I set my compass over the cor to Secs 9. 10. 15 and 16 on the Provisional Base Line and adjust it to a true meridian by the Solar apparatus. The magnetic bearing of the true meridian is N. 12° 19' W which corrected by table on pg 55 of the manual of instructions gives for mean local declination 12° 15' E.
N. 0° 3' W. bet secs 9 and 10
Va. 12° 19' E.
Over gently rolling table land.
40.00 Set a hard sandstone 20 x 10 x 3 in. 15 in. in the ground for ¼ sec cor. marked ¼ on W. face. dug pits 18 x 18 x 12 ins. N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside.
40.60 Short drain 5 ft deep course N.W.
43.50 Bend of ravine 8 ft deep course N.E. thence N.W.
47.00 Same ravine course S.E. 10 ft deep.
72.90 Ravine course S.E. 6 ft deep.
80.00 Set a sandstone 24 x 16 x 3 in. 18 ins in the ground for cor to secs 3. 4. 9 and 10 marked 5 notches on S. edge and 3 on E. face dug pits 18 x 18 x 12 in. in each Sec 5 ft dist and raised a mound of earth 2 ft high 4½ ft base alongside. Land gently rolling or S.2 Soil is clay loam 1st rate. N.a is broken by ravines Soil 2d rate.
No timber

Subdivision T. 33 N. R. 12 W. Continued

chains S. 89° 57' E. bet Secs 3 and 10 on random line
Va. 12° 19' E.
40.00 Set temporary ¼ Sec cor.
80.02 Intersected the N. and S. line 2 lks S. of cor to secs 2. 3. 10 and 11
Thence I run
N. 89° 58' W. on a true line bet Secs 3 and 10
With same Va.
Over rolling and broken land.
12.20 Ravine course S.E. 20 ft deep ascend along N. side of ravine to tableland
30.00 Enter tableland level and smooth.
40.01 Set a hard sandstone 16 x 13 x 4 in. 11 ins in the ground for ¼ sec cor marked ¼ on west face dug pits 18 x 18 x 12. N. and S. of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base
80.02 The cor to secs 3. 4. 9 and 10.
Land rolling and broken E. 30 ch. Soil clay 2d rate.
W. 50 ch smooth. clay loam 1st rate.

At 7.30 A. M. diurnal change has increased Va 2'
N. 0° 3' W on a random line bet secs 3 and 4.
Va. 12° 21' E
40.00 Set temporary ¼ sec cor.
80.04 Intersect the N. boundary of the T. 16 lks W. of the cor to Secs 3. 4. 33 and 34. which is a hard sandstone firmly set and properly marked and witnessed as heretofore described in notes of exterior boundaries of T. 33 N. R. 12 W.
Thence I run.
S. 0° 4' W on a true line bet secs 3 and 4.
With same Va.
Over rolling table land.
40.04 Set a sandstone 16 x 8 x 4 in. 11 in. in the ground for ¼ sec cor marked ¼ on W. face dug pits 18 x 18 x 12 ins. N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside.
80.04 The cor to secs 3. 4. 9 and 10.
Land gently rolling
Soil clay loam 1st rate.
No timber

T.34, R.12

T.35, R.12

Subdivision T. 33 N. R. 12 W. Continued

chains At 10 A. M. I set my compass over the center of the cor to secs 8. 9. 16 and 17 on the Provisional Base Line and adjust it to a true meridian by the Solar apparatus the magnetic bearing of the true meridian thus found is N. 12° 20' W. which corrected by table on page 55 of manual gives for mean local declination S. 0° 3½ E. bet Secs 16 and 17
Va 12° 17' E.

Over rolling tableland
.90 Drain course S.E. 5 ft deep.
8.50 Drain course S.E. 5 ft deep
21.25 Drain course S.E. 5 ft deep.
40.00 Set a sandstone 16 x 14 x 4 ins. 11 ins. in the ground for ¼ sec cor marked ¼ on W face dug pits 18 x 18 x 12 in N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
45.50 Divide wagon road bears E and W
67.00 S. edge of table land. rapid descent bluffs bears E. and W.
80.00 On W. slope of low ridge. Set a hard sandstone 15 x 12 x 4 ins. 10 ins. in the ground for cor to secs 16. 17. 20 and 21 marked 2 notches on S. edge and 4 on E. face dug pits 18 x 18 x 12 ins. in each Sec 5½ ft dist. and raised a mound of earth 2 ft high 4½ ft base, alongside
Land gently rolling
Soil clay loam 1st rate.
No timber

S. 89° 57' E. on a random line bet Secs 16 and 21
Va 12° 18' E.

40.00 Set temporary ¼ sec cor.
80.20 Intersect the N. and S. line 12 lks N. of the cor to secs 15. 16. 21 and 22
Thence I run.
N. 89° 52' W. on a true line bet Secs 16 and 21
With same Va
Over rough and broken ground.
1.63 Ravine course S. 10 ft lower than cor.
11.10 Ravine course S 30 ft deep
18.60 Ravine course S. 30 ft deep
38.40 Ravine course S. 10 ft deep
40.10 On a point of divide bet ravines

Subdivision T. 33 N. R. 12 W. Continued

chains. Set a sandstone 16 x 12 x 4 ins. 11 ins. in the ground for ¼ sec cor. marked ¼ on N face dug pits 18 x 18 x 12 in. E and W of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside
43.90 Ravine course S.E. ascend to
45.00 Table land bears N.E. and S.W.
54.50 Edge of tableland bears N.W. and S.E. descend.
67.70 Ravine course S.W. 10 ft deep
77.60 Ravine course S. ascend 13 ft to.
78.97 Top of ridge and descend 8 ft to
80.20 The cor to secs 16. 17. 20 and 21.
Land rolling and broken
Soil light colored clay 3rd rate
The tableland which about 10 chs wide is covered with a prairie dog town.
No timber

At 11 30 A. M. diurnal change has decreased Va. 4'
S. 0° 03½' E. bet secs 20 and 21
Va. 12° 14' E.

Over rolling and broken descending ground
4.50 Ravine course S.E. 15 ft below cor.
15.30 Ravine course S.E.
23.55 To edge of broken bluff here begin descending steep clay and blue shale bank bears N.W. and S.E.
26.00 Foot of steep bank 50 ft high enter valley bears N.W. and S.E. enter brush and timber.
27.80 Road bears N.W. and S.E.
33.65. Intersect the left bank of Niobrara River 4 ft high sandy lined with willow brush. Set a hard sandstone 16 x 14 x 5 ins. 11 ins. in the ground for meander cor to fractional Secs 20 and 21. marked M.C. on S side dug a pit 36 ins sqr. 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside.
A white willow 6 ins. diam bears N. 80° 15' W 19 lks dist. marked B.T. M.C. S 20. no other bearing trees within limits.
Soil light or gray colored clay 3rd rate.
Timber in narrow valley; chiefly Willow and Cottonwood next to river and large cottonwood trees on N. side

T. 34, R. 12
T. 35, R. 12

Subdivision T. 33 N. R. 12 W. Continued

chains. of valley

To connect this meander cor with that of previous survey on the S side of the river. I go to the cor to Sec. 20. 21. 28 and 29. The line bet Sec 20 and 21 was run at a Va. of 13° 20' E. and dis- to the Right bank of the Niobrara R. 27.44 ch. according to the notes of the original survey from the above va. I subtract 1° 16' which leaves for Va at present time 12° 04' From the above described cor I run N. bet secs 20 and 21

Va. 12° 04' E.

25.10 ch. Intersect Right bank of Niobrara R. which leaves 2.34 ch. which have been cut away by the river. I am therefore unable to connect the meander cors on opposite bank of the river. Aug 16th 1890.

At 6 A. M. Aug 17th I set my compass over the center of the cor to secs 8. 9. 16 and 17 and adjust it to a true meridian by the Solar apparatus The magnetic bearing of the true meridian is N. 12° 22' N. which corrected by table on page 55 of manual of instructions gives for mean declination 12° 18' E.

Thence I run

N. 0° 3½' W. bet secs 8 and 9.

Va. 12° 18' E.

Over rolling tableland

40.00 Set a hard sandstone 16×7×5 – 11 ins in the ground for ¼ sec cor marked ¼ on W face dug pits 18×18×12 ins N. and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside

80.00 Set a hard sandstone 16×12×4 ins. 11 ins in the ground for cor to secs 4. 5. 8 and 9. marked 5 north on S. edge and 4 on E. face dug pits 18×18×12 ins. in each Sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base, alongside.

Land gently rolling

Soil clay loam 1st rate.

No timber

Subdivision T. 33 N. R. 12 W. Continued

chains S. 89° 57' E. on a random line bet secs 4 and 9

Va. 12° 22' E.

40.00 Set temporary ¼ Sec cor.

80.22 Intersect the N. and S line 20 lks N. of the cor to Secs 3. 4. 9 and 10

Thence I run

N. 89° 48' W on a true line bet Secs 4 and 9

With same Va.

Over rolling table land.

5.60 Ravine course S.E. 5 ft deep.

20.60 Ravine course S.E. 6 ft deep

40.11 Set a hard sandstone 15×10×3½ ins. 11 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18×18×12 ins E. & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside

80.22 The cor to secs 4. 5. 8 and 9

Land E. rolling clay soil 1st rate.

W. undulating or gently rolling 1st rate.

No timber

There is a settler in the N.W. ¼ Sec 9 has a small frame house

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At 7.30 a.m. diurnal change increased Va 2'.

N. 0° 3½' W on a random line bet Secs 4 and 5

Va. 12° 24' E.

40.00 Set temporary ¼ sec cor

79.88 Intersect N. boundary of the Tp. 38 lks W of the cor to secs 4. 5. 32 and 33 which is a sandstone firmly set and properly marked and witnessed as heretofore described in the notes of survey of exterior boundaries of T. 33 N. R 12 W

Thence I run

S. 0° 12½' W. on a true line bet Secs 4 and 5.

With same Va.

Over gently ascending ground

20.50 Drain course N.E. 2 ft deep

39.28 Drain course E. 2 ft deep

39.88 Set a hard sandstone 15×12×4 ins. 10 ins. in the ground for ¼ sec cor marked ¼ on N. face dug pits 18×18×12 ins. N. and S of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base. alongside

T. 34 N. R. 12

T. 33 N. R. 12

Subdivision T. 33 N. R. 12 W. Continued

Chains
79.88 The cor to Secs 8. 9. 4 and 5.
Land gentle N. slope. Soil is dark clay loam 1st rate
No timber
There is a settler on the W½ of Sec 4

At 10 A. M. I set my compass over the cor to secs 7. 8. 17 and 18 on the Provisional Bee Line and adjust it to a true meridian by the Solar apparatus. The magnetic bearing of the true meridian is N. 12° 20' W. which corrected by table on page 55. of the manual of instructions gives for mean declination 12° 18' E.
Thence I run
S. 0° 4½' E. bet 17 and 18
Va. 12° 20' E.
Over rolling and broken ground ascend E. slope of ridge
2.50 Top of ridge bears N. W and S. E. descend
19.25 Ravine course S W
23.25 Ravine course S W
29.50 Ravine course S. W
40.00 Set a sandstone 15×12×4–11 ins. in the ground for ¼ sec cor marked ¼ on W face dug pits 18×18×12 in. N and S of stone 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base, alongside
44.70 Wagon road bears N.E and S W
57.50 Leave hills and enter Niobrara valley on the W side of a ravine bluffs bear N W and S E.
62.00 Entering scattering cottonwood timber
75.80 Wagon road bears E and W.
80.00 Set a hard sandstone 24×14×4 ins. 18 ins. in the ground for cor to secs 17. 18. 19 and 20. marked 3 notches on S edge and 5 on E. face. dug pits 18×18×12 ins. in each Sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside from which.
A. Cottonwood 24 ins diam. N. 57° 15' E. 36 lks dist. marked S. 17. T. 33 N. R. 12 W. 6 ins above ground B. T.
A Cottonwood 20 ins diam S. 32° 15' E. 75 lks dist. marked B. T. 6 ins above ground & 2½ ft above ground S. 20 T. 33 N. R. 12 W.
A. Cottonwood 40 ins diam S. 25° W. 76 lks dist. marked B. T. 6 ins above gound and 2½ ft above ground S. 19 T. 33 N. R 12 W.

Subdivision T. 33 N. R. 12 W. Continued

chains A Cottonwood 32 ins diam N. 18° W 167 lks dist. marked B. T. 6 ins above ground & 2½ ft high S. 8. T. 33 N R. 12 W.
Land – N. 40 chs broken 3rd rate.
Next 17½ descending clay hills smooth slope good 3rd rate.
The valley is sandy 3rd rate land.
Timber – Willow and large Cottonwood trees

S. 89° 57' E. on a random line bet secs 17 and 20
Va. 12° 20' E.
40.00 Set temporary ¼ sec cor.
79.80 Intersect the N and S line 16 lks S of the cor to secs 16. 17. 20 and 21.
Thence I run
S. 89° 59' W on a true line bet Secs 17 and 20
With same Va.
Over rolling and broken S. slope of bluffs.
4.00 Ravine course S. E. 12 ft deep.
22.80 Ravine course S E. 20 ft deep
36.34 Top of projecting point of bluffs of blue clay bears N. W and S E Descend
37.30 Foot of bluff and enter valley bear N W and S E.
37.50 Wagon road bears N. W and S. E.
39.90 Set a hard sandstone 16×10×4–11 ins. in the ground for ¼ sec cor marked ¼ on W. face dug pits 18×18×12 ins. E and W of stone 5½ ft dist. and raised a mound of earth 1½ ft high 3½ ft base, alongside
40.14 A Cottonwood 15 ins diam. marked with 2 notches on E and W sides
64.00 A Cottonwood 24 ins dia marked with 2 Notches on E & W. sides
71.81 A. Cottonwood 24 ins. diam marked with 2 notches on E. and W. sides.
79.80 The cor to secs 17. 18. 19 and 20.
Land on slope rolling and broken
Soil 3rd rate farm land
Good for grazing.
Land in valley is sandy
Covered with open cottonwood
timber and scattering brush.
Timber – Cottonwood

T. 34 N. R. 12
T. 35 N. R. 12

Subdivision T. 33 N. R 12 W. Continued

chains. Knowing that the line bet Secs 18 and 19 will strike the river at less than 8 chains.
I run
N. 87°57' W. on a true line bet secs 18 and 19
Va. 12° 20' E.

.70 Intersect the Left bank of the Niobrara River bank sandy 6 ft high.
Set a hard-sandstone 14 x 8 x 5 ins. 9 ins in the ground for meander cor to fract'l Secs 18 and 19 marked M. C. on N. face dug a pit 36 ins sqe. 8 lks E. of stone and raised a mound of earth 2 ft high 4½ ft base alongside.
Land level sandy
3rd rate Soil.

S. 0° 04½' E bet Secs 19 and 20
Va 12° 18' E.
Over level valley
1.63 Intersect Left bank of Niobrara River (6 ft high & sandy)
Set a hard-sandstone 16 x 10 x 3½ ins. 11 ins in the ground for meander cor. to fract'l Secs. 19 and 20. marked M. C. on S face dug a pit 36 ins square 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside. from which
A. Cottonwood 20 ins diam bears N. 3 lks dist. marked B. T. - M. C. - S. 19. T. 33 N. R 12 W.
Land level sandy 3rd rate.
To connect the above M. C. with that of previous survey on Right bank bet Secs 19 and 20 I go to the ¼ sec cor. bet fractional Secs 19 and 20. The Va at which the line was run was 13° 20' E and distance from Sec cor. to the Right bank of the River 58.20 chs
I subtract from the Va. - diminished Va for 19 yrs 1° 16' which leave for present Va. 12° 04' E.
North bet fract'l Secs 19 and 20
Va 12° 04' E.
15.00 chs Top of bluff bears E. & W.
16.00 " Enter river bottom bears E. and W.
17.90 " Intersect the right bank of Niobrara River
I find no trace of a stake, mound or pits and no marked bearing trees. There is a Cottonwood stump

Subdivision T. 33 N. R 12 W. Continued

Chains on line without any marks. I am therefore unable to connect the meander cors on opposite banks of the River.
Aug. 17. 1890

At 10 A. M. Aug. 18, 1890 I set my instrument over the cor to secs 7. 8. 17 and 18 on the Provisional Base Line and adjust it to a true meridian by the Solar apparatus. The magnetic bearing of the true meridian so found is N. 12° 20' W. which corrected by table on page 55 of the manual of instructions is 12° 14' E.
N. 0° 4½' W. bet secs 7 and 8
Va. 12° 20' E.
Over ascending ground.
6.50 Leave broken bluffs for smooth tablelands bears E. & W.
Over gently rolling land.
40.00 Set a hard sandstone 15 x 13 x 6 ins. 10 ins in the ground for ¼ sec cor marked ¼ on W. face dug pits 18 x 18 x 12 ins N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base, alongside
41.40 Divide road bears N. W. and S. E.
80.00 Set a hard-sandstone 16 x 12 x 6 ins. 11 ins in the ground for cor to secs 5. 6. 7. and 8 marked 5 notches on S edge and 5 on E face dug pits 18 x 18 x 12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land rolling. Broken land 3rd rate
Table land gently rolling.
Soil clay 1st rate
No timber

S. 89° 57' E on a random line bet secs 5 and 8.
Va. 12° 20' E.
40.00 Set temporary ¼ sec cor
79.80 Intersect N. and S. line 7 lks N. of cor to secs. 4. 5. 8 and 9.
Thence I run
S. 89° 54' W. on a true line bet secs 5 and 8
With same Va

Subdivision T. 33 N. R 12 W. Continued

Chains	
	Over rolling surface N. slope.
10.50	Ravine course N.
34.00	N. slope of stony butte Top of butte 1 ch S. 8 ft. higher than line — descend
38.45	Drain course N. 3 ft deep. ascend
39.90	Set a hard sandstone 16 x 12 x 4 ins 11 ins in the ground for ¼ sec cor marked ¼ on N. face dug pits 18 x 18 x 12 ins E. and W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
79.80	The cor to secs 5. 6. 7 and 8
	Land rolling general N. slope
	Soil clay loam 1st rate.
	Stone. There is a small rocky butte in the N. W.⁴ N. E.⁴ stone is hard and of little value
	No timber

A. 11.30 A. M. diurnal change has diminished Va 5'
N. 89° 57' W. on a random line bet secs 6 and 7
Va 12° 15' E.

40.00	Set temporary ¼ sec cor.
79.38	Intersect the W. boundary of the Tp. 7 lks N. of the cor to secs 1. 6. 7 and 12 which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of exterior survey of T. 33 N. R. 12 W.
	Thence I run
	E. on a true line bet secs 6 and 7.
	With same Va
	Over rolling prairie descend
4.58	Divide road bears N. E. and S. W.
10.00	Foot of slope ascend
30.00	Top of low ridge N. and S. descend
33.88	Spring branch water in pools runs S. ascend
39.38	Set a hard sandstone 16 x 10 x 3½ in 11 in in the ground for ¼ sec cor marked ¼ on N face dug pits 18 x 18 x 12 in E and W. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside.
51.98	Divide road bears N. W. and S. E.
79.38	The cor to secs 5. 6. 7 and 8.
	Land rolling Soil - W 20 chs clay loam next 30 chs sandy 3rd rate - mixed clay and sand 2d rate No timber

Subdivision T. 33 N. R. 12 W. Continued.

chains	
	N. 0° 4½ W. on a random line bet secs 5 and 6
	Va. 12° 15' E
40.00	Set temporary ¼ sec cor.
79.90	Intersect the N. boundary of the Tp 14 lks W. of the cor. to secs 5. 6. 31 and 32 which is a hard sandstone firmly set and properly marked and witnessed as heretofore described in the notes of the exterior survey of T 33 N. R. 12 W.
	Thence I run
	S 0° 1½ W. on a true line bet secs 5 and 6
	With same Va.
	Over rolling table land.
39.90	Set a hard sandstone 15 x 10 x 4 ins. 11 ins. in the ground for ¼ sec cor marked ¼ on W face dug pits 18 x 18 x 12 in N. and S. of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base. alongside.
69.10	Ravine course E. 10 ft deep.
79.90	The cor to secs 5. 6. 7 and 8.
	Land gently rolling
	Soil clay loam 1st rate.
	No timber.
	Aug 18th 1890.

Meanders of the Left bank Niobrara River
At 12 M. Aug 13, 1890. I set my compass over the cor to fractional secs 25 and 30. on the line bet Rs 11 and 12 W which is a sandstone 6 x 10 x 4 ins above ground marked M. C. on S face with a pit 36 ins sqr 1 ft deep 8 lks N. of stone and raised a mound of earth 2 ft high 4½ ft base alongside.
I take a backsight to the northward to a flag on line bet secs 25 and 30. the magnetic bearing of the line is. N. 12° 03' W. this corrected by table on page 56 of manual gives for local mean declination 12° 07' E.
Thence I run with meanders in Sec 25 - upstream
Va 12° 03' E.

courses	
	Along clay bank scattering brush
N. 87½° W.	4.00 chs at 3 chs leave clay bank for bottom & brush
S. 33½° W	12.00 "

T. 34, R. 12

T. 35, R. 12

Meander T. 33 N. R 12 W. Continued

course		
S. 1½° W	6 00 ch	At 3 ch mouth of slough course E.
S. 57¾° W	9 00 "	Low bottom covered with small willows & cottonwood
S. 39½° W	5 00 "	Small willows, cottonwood and dogwood along bank
S. 65¾° W	12 00 "	
S. 77½° W	10 80 "	
N. 85½° W	9 40 "	
S. 77½° W	7 50 "	
S. 61½° W	6 00 "	
S. 69½° W	7 00 "	
N. 28° W	3 00 "	
S. 83½° W	5 10 "	
N. 60½° W	2 10 "	To meander cor to fract'l secs 25 and 26. Soil sandy 3rd rate.
	98.90	Cottonwood trees and brush along bank 95.90 ch

At 11 A. M. aug 14 I set my compass over the meander cor. to fractional secs 25 and 26 and take a back sight bet Secs 26 and 27. The magnetic bearing of the line is N. 12° 12' W and the Va. 12° 10' E.

Thence I run with the meanders in Sec 26

Va. 12° 10' E.

Along low bank through small willow brush

S. 77½° W	11 00 ch	
N. 65° W	6 00 "	
N. 35° W	12 00 "	At 2 ch leave brush for open timber.
N. 76½° W	16 00 "	At 6 ch leave open timber for prairie
N. 66½° W	8 00 "	bank from 2 to 6 ft high
N. 57½° W	13 00 "	
N. 76½° W	5 00 "	
S. 86° W	10 10 "	
S. 80° W	5 30 "	To meander cor to fract'l sec 26 and 27.
	14.70	

Land bottom from 2 to 6 ft above river

Soil sandy 2nd and 3rd rate.

Timber and brush cottonwood and willow: 19 ch of brush and 16 ch timber

Aug 14th 1890

At 3 P. M. Aug 15th I set my compass over the meander cor to secs 26 and 27 I adjust my compass to a true meridian by the Solar apparatus. The magnetic bearing of the true meridian is N. 12° 56' W which corrected by table on page 56 of manual gives for mean declination

Subdivision T. 33 N. R 12 W. Continued

Course 12° 11' E.

Thence I run with meanders in sec 27.

Va 12° 06' E.

Over open prairie.

S. 80½° W	3 00 ch	
S. 66½° W	15 00 "	At 2 ch mouth of slough co. S.E. and enter brush
West	9 00 "	and small scattering cottonwood trees.
S. 63½° W	6 00 "	
N. 82½° W	5 00 "	
N. 79½° W	3 00 "	
N. 73° W	13 00 "	
N. 51½° W	4 00 "	Leave scattering timber for willows & dogwood brush
N. 38½° W	3 00 "	
N. 65¾° W	14 00 "	
N. 52° W	3 00 "	At 2 ch leave willows for open timber.
N. 9° E.	2 00 "	bank from 2 to 4 ft high.
N. 46° W	10 00 "	
N. 30½° W	3 35 "	To meander cor to fract'l secs 27 and 28.
	33.35	Bank 2 to 6 ft high. Soil sandy 3rd rate.

Timber willows and dogwood 7.2 ch Cottonwood 16.35 ch.

Aug 15th 1890

At 2 P. M. Aug 16th

I set my compass over the meander cor to fract'l secs 27 and 28 and take a back sight on the cor to secs 21, 22, 27 and 28 The magnetic bearing of the line is N. 12° 13' W and the Va. is 12° 10' E.

Thence I run in sec 28

Va 12° 10' E.

N. 58¾° W	15 00 ch	at 4 ch lower end of small island
N. 71½° W	10 10 "	At 3 ch opposite upper end of same island
N. 59¾° W	8 30 "	At 5.75 mouth of bayou course S.
	33.30	To meander cor to fract'l secs 21 and 28.

Land level

Soil sandy and clay 2nd and 3rd rate.

At 3 P. M. Aug 16th I set my compass over the meander cor to secs 21 and 28 and adjust it to a true meridian by the Solar apparatus The magnetic bearing of the true meridian so determined is N. 12° 12' W which corrected by table on page 56 of manual of instructions

T. 33 N. R. 12 W.

Meanders of T. 33 N. R. 12 W. Continued

courses gives for mean declination 12° 15' E.
Thence I run in Sec 21

Va. 12° 12' E.

N. 42½° W. 14 00 chs At 3 chs leave low bottom and ascend high abrupt clay banks
N. 37½° W. 21 00 "
N. 43½° W. 20 40 "
N. 72¾° W. 15 00 " (At 2 chs mounted of ravine and leave high banks
70.40 and enter willow and dogwood brush and small
cottonwood trees) To meander cor to fract'l secs 20 and 21.
Land in valley sandy 3rd rate. bluffs are from 30 to fifty
feet high and clay land 3th rate.
Timber - willow, dogwood, brush and young cottonwood.

Aug 16th 1890.

At 3 P. M. Aug 17 at the meander cor to fract'l secs 20 & 21
I adjust my compass to a true meridian by the Solar
apparatus which I find to be N. 12° 14' W. the Va is
12° 14' E. which corrected by table on page 55 give
for mean Va. 12° 18' E.
Thence I run with meanders in sec 20

Va 12° 14' E.

Through willow brush and dogwood
N. 72¾° W. 2 30 chs
N. 53° W. 5 50 "
N. 73° W. 5 00 "
S. 83½° W. 10 00 "
N. 84½° W. 3 00 "
N. 59½° W. 6 00 "
N. 79½° W. 8 00 "
N. 74¾° W. 9 00 "
N. 47½° W. 8 00 "
N. 35° W. 8 00 "
N. 54½° W. 12 00 "
N. 88½° W. 13 30 "
N. 40° W. 1 40 " To meander cor to fract'l secs 19 and 20.
93.50
Land level soil sandy 3rd rate. Timber and brush 91.50 chs

Aug 17. 1890

At 6 A. M. Aug 18th I set my compass over the M. C. to
fract'l secs 19 and 20 and take a backsight to the cor to secs
17. 18. 19 and 20. The magnetic bearing of the line is N. 12°
26' W. The Va. is 12° 22' E. the mean declination is 12° 18' E.

Meanders T. 33 N. R. 12 W. Continued.

courses Thence I run in sec 19, up stream,

Va. 12° 22' E.

Through open timber.
N. 23½° W. 1 77 chs To meander cor to fract'l secs 18 and 19.
Land level Soil sandy 3rd rate.
Timber - Cottonwood 1.77 chs.

Thence in Sec 18

Va. 12° 22' E.

Through open timber; bank 3 to 5 ft high.
N. 23½° W. 2 25 chs
N. 75° W. 11 00 "
N. 87¾° W. 15 00 "
N. 67¾° W. 15 00 "
S. 85¼° W. 8 00 "
N. 61½° W. 6 00 "
S. 80¼° W. 10 00 "
S. 71¼° W. 12 00 "
S. 28° W. 6 80 " At 2 chs leave open timber and enter red willow brush.
S. 81° W. 1 30 " To meander cor to fractional secs 13 and 18 on
87.35
the W. boundary of the Tp.
Land level Soil sandy 3rd rate.
Timber - Large cottonwood trees along the river bank
and over the valley willow brush at W. end.
Total 87.35 chs Aug 18th 1890.
Total distance of timber and brush on meander lines
is 5 miles. 12 chs 87 lk. and on subdivision lines 29.15 chs

Aug 17 1890

General Description

This Tp. is composed of high rolling tableland
and valley
Ponca creek runs through secs 1 and 2; the val-
ley in sec 1 is wide level dark clay soil 1st rate.
The valley along Niobrara Riv. is narrow of
first and second bottom but principally
first and generally sandy soil. The second
bottom is clay loam and good farm land.
where it is not too broken
The table land is high, from 150 to 200 ft high,
and is generally N. slope, clay soil and good

T. 31, R. 12

T. 35, R. 12

T. 33 N. R. 12 W.

farm land where it is not too broken.

Along the dry creeks are many springs, in spring bogs, that if cleaned out would make fine watering places. The grass is generally wire and blue-joint; stock especially horses seem to prefer feeding on the wire grass in preference to the other kinds.

In the ravines tall course grass is found which the settlers are cutting for hay.

The timber is principally Willow, Box Elder, Cottonwood, Ash and Oak - brush is willow, dogwood, prickly-ash and buffalo-berry.

Note. - The stone used for cors in this Tp. are a hard sandstone (excepting as otherwise particularly described). and I found it impracticable to mark them on the corners and make them distinct, and therefore set the stone with flat sides to the E. and W. and edges N. and S. for sec corners, and cut the notches or horizontal bars not less than 2 in. long on the S. edge and E. faces and of sufficient depth to make them distinct and easily read.

T.34 R.12
T.35 R.12

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, in ....., showing the respective capacities in which they acted:
.....
.....
.....
.....
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.....
.....
.....

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....
.....

Oaths of Assistants see Vol 578 pg 190

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....
.....

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T.31, R.12

T.35, R.12

Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the, ~~U. S. Surveyor General~~ for General Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General~~ Commissioner of the for General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Fractional Township 33 North, Range 12 West of the 6th

Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the ~~U. S. Surveyor General~~ Commissioner of the for General Land Office and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 8th day of April, 1891.

C. E. Forbes
Clerk Dist. Court.

NORTH COUNTY NEBRASKA
Seal
DISTRICT COURT

Approval.

F. A. W.
M. M. R.

Office of the ~~U. S. Surveyor General~~ Commissioner Genl Land Office
Washington, D.C. June 30, 1891.

The foregoing field notes of the survey of Subdivisional lines in fractional T. 33 N. R. 12 W. of the 6th Principal Meridian in the State of Nebraska

; executed by U. S. Surveyors Nicholas J. Paul and Robert Harvey under ~~his~~ their Contract No. ——, dated May 26, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

F. H. Carter
Commissioner Genl Land Office
Ex Officio Surveyor General.
~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above-described surveys in ——, has been correctly copied from the original notes on file in this office.~~

6—151

U. S. Surveyor General.

(4—679.)

FIELD NOTES

OF THE SURVEY OF

Subdivisional lines in Township 34 North Range 12 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. ——, dated May 26th, 1890.

Survey commenced August 21st, 1890.

Survey completed August 27th, 1890.

(8780—2,000.) 6—151

T. 34, R. 12

T. 35, R. 12

Names and Duties of Assistants.

Benjamin A Davidson	Chainman
Charles A Paul	Chainman
Henry A Burrell	Axeman
Sumner L Lyle	Axeman
Jonathan L Peden	Flagman

INDEX DIAGRAM.

Township 34 N , Range 12 W

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Meanders Page.....

T34, R12
T35 R12

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., *Axeman.*

....., *Axeman.*

.....

.....

6—151

Compass
C & P

Subdivision T 34 N R 12 W

Survey Commenced Aug 21st 1890 with Burt's improved Solar Compass Made by Wm J Young of Philadelphia Penn. and numbered 4432.

Preliminary to commencing the subdivision of this township I go to the corner to Townships 33 and 34 N. Rs 11 and 12 W. which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of exterior boundaries of Tps 33 and 34 and Rs 11 and 12 W. I set my compass over the center of the above described cor. I clamp the Main plate at O and take a sight on the picklet I established on the true Meridian on the night of Aug 3rd and to a flag set Aug 4th on line bet secs 31 and 36 and N of the ravine

The magnetic bearing of the true Meridian is N 12° 10' W which corrected by table on page 55 of the printed manual of instructions is 12° 06' E.

The method of determining the true meridian at this point on the evening of Aug 3rd 1890 I here insert in my notes of observation

Observation Aug 3rd 8h 15m P.M.

Astronomical time by watch Aug 3rd		8h 15m
Tabular M.t.U.C of Polaris Aug 1st Tab I	16. 35.0	
Reduction for 1 day	3.9	-16 31.1
Diff is hour angle of Polaris at obs		15 44.
Subtract from		23 56.1
Argument for Table II		8 12
Azimuth of Polaris for Lat. 43° N		1° 26' E
North end of Needle		10° 40' E.
The sum is the Va		12° 06' E.

I lay off Azimuth 1° 26' to the West and "drive a picklet" 2 chains N of Cor.

T 35 R 12

Subdivisions T 34 N R 12 W Continued

From the Township corner
I run
North on East boundary sec 36
Va 12° 10' E.
And at 40.01 chs find the 1/4 sec cor and at 80.03 chs find the cor to secs 25. 30. 35 and 36. on line
The bearing of the Range line is therefore North
I now return to the S.E. cor of the Township and again take the magnetic bearing of the Range line. Which I find to be N 12° 12' W. at 7.30 AM.
Thence I run
West along the south boundary of sec 36.
Va 12° 12' E.
At 40.02 chs find 1/4 sec cor and at 80.03 chs find the cor to secs 1. 2. 35 and 36. on line.
The true course of the S. boundary of sec 36. is therefore as above stated
With the above named true bearings the subdivision lines of the Eastern tier of secs corrected by table 10 for meridional sec lines will be run as required by the printed manual of instructions
My chaining practically agrees with the original survey.

I commence at the corner to secs 1. 2. 35. and 36. on the S boundary of the Township which is a sandstone as firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34. N R 12 W.
From a backsight on flag on ridge on the South boundary of S 36.
I lay off at this cor an angle of 89° 57' to the North which I find has a magnetic bearing of N 12° 12' E and which gives the direction of the true Meridian
At 8.30 AM.
On account of cloudy weather
I cannot use the solar apparatus

Subdivisions T 34 N R 12 W. Continued

Chains Thence I run
N 0° 3' E. bet secs 35 and 36
Va 12° 12' E
Over level valley
11.00 Leave valley and enter bluffs bears N 17° W and S 17° E Ascend bluffs
36.00 Point of gradual hill
40.00 Set a hard sandstone 14×12×3 ins. 9 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
46.60 Top of table land bears N W and S E
Thence over level prairie
76.00 Leave table land and enter level prairie
79.35 Ravine 10 ft deep course N W. Ascend
80.00 On West slope of steep hill.
Set a hard sandstone 20×12×6 ins 15 ins in the ground for cor to secs 25. 26. 35 and 36. Marked.
One notch on S Edge and one on East face. Deposited 1/2 of a cast iron "Dutch oven" lid with letters thereon "ORKS" on one end on the other end "NEW YORK" alongside foot of stone: dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
Land rolling
Soil - In valley sand and clay loam 1st rate
" S slope of bluffs sandy and gravelly
" poor grass 4th rate
" Table land dark rich clay loam 1st rate
No timber.
See explanation for change of notes of bearing of this line on page 8 at beginning of line bet secs 13 and 14.

East on a random line bet secs 25 and 36
Va 12° 12' E.
40.00 Set temporary 1/4 sec cor
79.90 Intersect the E boundary of the Tp 5 links S of the cor to secs 25. 30. 31. and 36. which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W.

Subdivisions T 34 N R 12 W. Continued

Chains Thence I run
S 89° 58' W on a true line bet secs 25 and 36
With same Va

Over valley land
17.90 Storm Creek. Water in holes. Dry on line
Course S.E.
15.00 Leave valley and ascend bluffs bears N and S.
32.40 Top of ridge bears N.W. and S.E. Descend
39.95 Set a hard sand stone 16×10×3½ ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 on N. face and deposited at foot of stone a small piece of cast iron "Dutch oven". Dug pits 18×18×12 in 5½ ft dist and raised mound of earth 1½ ft high 3½ ft base alongside
Descend 3 ft to
40.75 Ravine course S. Ascend 8 ft.
41.50 Top of ridge bears N and S.
43.55 Ravine course S. 8 ft deep
49.90 Ravine course S.E. 10 ft deep
60.20 Ravine course S.E.
63.00 Top of ridge Course N.W. and S.E.
67.00 Ravine course S.E. 20 ft deep Ascend
74.70 Top of ridge bears S.E. 25 ft deep
Descend steep hill to
79.90 The cor to secs 25. 26. 35 and 36.
Land rolling and broken
Soil is dark clay 3rd rate farm land.
Timber - None along line.
There is a small clump on South side of the big ravine in N.W.4 Sec 36.

At 10.30 the needle has resumed its mean place N 0° 3' E bet secs 25 and 26.
Va 12° 07' E.

Over broken ground. Descend.
7.00 Ravine course N.W.
13.00 Ravine course N.E.
16.50 Point of hill
31.00 Ravine course S.E. 20 ft deep
40.00 Top of hill.

Sub divisions T 34 N R 12 W Continued

Chains Set a hard sandstone 16×10×3½ ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 on W. face dug pits 18×18×12 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
56.15 Short ravine course East. 8 ft deep
68.00 Drain course S.E. 5 ft deep
80.00 Set a hard sandstone 16×14×4 ins - 11 ins in the ground for cor to secs 23. 24. 25. and 26. Marked 2 notches on S edge and 1 on E face. deposited at foot of stone 1 12 in "Dutch oven" lid. Marked "Poccussett" Iron Works - 12 in" dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base along side
Land. N.2 45 chs - Rolling prairie
- Clay loam 1st rate
- S 35 chs broken by ravines 3rd rate farm
- land along the line.
- West of line is fine tableland
Timber - A few scattering oak trees in the ravines. See explanation for change of notes of bearing of this line on page 8 at beginning of line bet secs 13 and 14.

East on a random line bet secs 24 and 25
Va 12° 07' E.

40.00 Set temp vary 1/4 sec cor.
79.78 Intersect the E boundary of the Tp 7 links S. of the cor to secs 19. 24. 25 and 30. which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W.
Thence I run
S 89° 57' W on a true line bet secs 24 and 25.
With same Va.

Over creek valley
16.05 Storm Creek. Water in holes Dry on line course S.
Ascend steep bluff through brush and trees
17.70 Top of sharp ridge bears N.W. and S.E. - Slopes S.E. 40 ft above the creek. Descend.
18.80 Drain course S.

Subdivisions T 34 N R 12 W Contd

Chains
30.80 A flat ravine 1 ch wide Course S.E.
32.70 A flat ravine course S.E.
Ascend along North slope of hill
39.89 Set a hardsandstone 20×12×2½ ins 15 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
41.35 Short gulch course N.
44.90 Ravine course N.E.
48.60 Same Ravine course S.E.
57.80 Top of ridge bears N & S.
Gradual Descent.
71.55 Ravine 6 ft deep course S.
Gradual ascent to
79.78 The cor to secs 23 24 25 & 26.
Land - E 50 chs broken by ravines 3rd rate. farm land balance is fine West slope dark clay loam 1st rate.
Grass - There is tall course grass in the two flat ravines in E 2 that will make good hay.
Timber - There is a small clump on line on bank of Storm creek. Elm & Hackberry.

At 12.00 M diurnal change has decreased the Va 4'
N 0° 1' W bet secs 23 & 24.
Va 12° 03' E.
Over smooth ascending prairie
10.50 Drain course S.E. 3 ft deep
40.00 Set a hardsandstone 15×10×9 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on W. face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
76.00 Began Descending
80.00 Set a hard sandstone 25×12×4 ins 18 ins in the ground for cor to secs 13.14.23. & 24.
Marked 3 notches on S. Edge and 1 on E face

Subdivisions T 34 N R 12 W Contd

Chains
dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land - S 50 chs gentle S slope
Soil dark clay loam 1st rate farm land.
N 30 chs ascending rolling dark clay soil 1st rate
No timber
☞ For course of last line see explanation at beginning of line bet secs 13 & 14.

Local attraction at 12.30 has increased the Va 3'
East on a random line bet secs 13 & 24.
Va 12° 06' E.
40.00 Set temporary 1/4 sec cor.
79.60 Intersect the E boundary of the Township 7 links S of the cor to secs 13.18.19 & 24 which is a sandstone firmly set and properly marked & witnessed as heretofore described in notes of Survey of exterior boundaries of T 34 N R 12 W.
Thence I run
S 89° 57' W on a true line bet secs 13 & 24
With same Va
Over valley land
2.85 Storm creek. Dry on line course. S.E.
6.60 Leave valley and ascend bluffs bears N & S.
19.60 Top of ridge bears N.W & S.E.
38.40 Ravine course S.W.
39.80 Set a hard sandstone 16×12×3 ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
40.80 Short Ravine course S.
42.60 Leave hills 15 ft high & enter valley bears S.E & N.W.
47.50 Drain course S. 3 ft deep
62.00 Leave valley & ascend gradually bears N & S.
65.85 Ravine course S.E.
79.60 The cor to sec's 13.14.23. & 24.
Valley land is black soil 1st rate
Rolling land is dark clay 2nd & 3rd rate

Subdivisions T 34 N R 12 W Contd

Chains No timber
The balance of this tier of secs will be run tomorrow.
I now go to cor to secs 2.3.34 and 35. to commence running the 2nd tier

Aug 21st 1890

Aug 22nd 1890. At 6 A.M. I set my compass over the cor to secs 13. 14. 23. and 24.
The weather being now clear I am able to adjust my instrument to a true meridian by the Solar Apparatus.
By tasking a backsight on line bet secs 23 & 24. I find that it has a bearing of S. 0° 3' W and its magnetic bearing is S. 12° 10' E. I correct the course for the next line by the solar compass 4'
I correct the notes of the course of the meridional sec lines bet 35 and 36. 25 and 26. and 23 and 24 to N 0° 3' E and the angle laid off yesterday morning to 89° 57' to the N. N 0° 1' W bet secs 13 and 14

Va 12° 10' E.

Over broken ground. Descend.
7.00 Ravine course S. E. 20 ft lower than sec cor. Ascend.
27.00 Stoney point of hill. Descend.
31.60 Ravine course E. - 20 ft lower than stone pile
Ascend
40.00 Top of hill
Set a hard sandstone 21 x 9 x 5 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on N face deep pits 18 x 18 x 12 N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
Descend
47.15 Drain course E.
80.00 Set a hard sandstone 21 x 8 x 5 ins 16 ins in the ground for cor to secs 11. 12. 13 and 14. Marked 4 notches on S edge and 1 on E face deep pits 18 x 18 x 12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
Land - S2 High rolling and broken. 3rd rate farm land.
N2 Gentle N descent clay loam 1st rate
The rock at 27. chs is a deposit of hard—

Subdivisions T 34 N R 12 W Contd

Chains Sandstone broken up and is from 2 to 5 ins in thickness.
About 15 chs S E on S E end of ridge a hill covered with same kind of stone
No timber

East on a random line bet secs 12 and 13.

Va 12° 10' E.

40.00 Set temporary 1/4 sec cor.
79.62 Intersect the East boundary of the Tp. 16 links S of the cor to secs 7. 12. 13. and 18. which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W
Thence I run
S. 89° 53' W on a true line bet secs 12 and 13.

With same Va

Over valley land.
9.50 Leave valley and enter hills bears N and S.
35.50 Drain course S E.
39.81 Set a hard sandstone 18 x 11 x 3 ins 12 ins in the ground for 1/4 sec cor. Marked 1/4 on N face. deep pits 18 x 18. x 12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
67.60 Enter valley and leave rolling prairie
68.57 Drain course S E 2 ft deep
73.60 Leave valley and Ascend gradually to
79.62 The cor to secs 11. 12. 13 and 14.
Land in valleys black clay loam 1st rate
balance is rolling clay soil 2nd rate
There is good grass suitable for hay.
No timber

At 7 30 A.M. diurnal change has increased Va 2'
N. 0° 1' W bet secs 11 and 12

Va 12° 12' E

Over gently rolling descending ground.
8.25 Enter small shallow drain. Course to line N E

Subdivisions T 34 N R 13 W Contd

Chains Thence down drain to
8.75 Leave drain course E.
22.00 Drain course E. enter valley - Thence
Ascend valley bears N.W. & S.E.
23.50 A flat drain 4 ft deep course S.E.
30.10 Same Ravine course S.W. 4 ft deep
30.85 Same Ravine course S.E.
38.00 Same Ravine course W.
38.50 Leave valley and enter Ascending ground
bears N.E. & S.W.
40.00 Set a hard sandstone 18x13x4 ins - 13 ins in the
ground for 1/4 sec cor. Marked 1/4 on W face dug
pits 18x18x13 ins N. & S. of stone 5 1/3 ft dist and
raised a mound of earth 1 1/3 ft high 3 1/3 ft base
alongside
59.90 Ravine course S.E. 5 ft deep
80.00 Set a hard sandstone 27x17x5 ins 20 ins in the
ground for cor to secs 1. 2. 11. & 12. Marked
5 notches on S Edge & 1 on E face. Deposited 1/2
of bottom of a 13 in "Dutch oven" lettered "Assott
Iron Works" "12 in 24" dug pits 18x18x13 ins in
each sec 5 1/3 ft dist and raised a mound of
earth 2 ft high 4 1/3 ft base alongside
Land rolling
Soil - Dark clay loam 1st rate
Fine hay is cut along the valley
No timber

East on a random line bet secs 1 & 12.
Va 13° 17' E.
40.00 Set temporary 1/4 sec cor.
79.66 Intersect the East boundary of the Township 31 lks
S of the cor to secs 1. 6. 7 & 12. which is a hard
sandstone firmly set and properly marked &
witnessed as heretofore described in notes of
survey of exterior boundaries of T 34 N R 13 W.
Thence Run
S 89° 51' W on a true line bet secs 1 & 12.
With same Va
Over rolling table land.

Subdivisions T 34 N R 13 W. Contd

Chains
13.05 Ravine course S.W. 10 ft deep
35.40 Ravine course S.E. 10 ft deep
39.83 Set a hard sandstone 18x13x4 ins - 13 ins in the
ground for 1/4 sec cor Marked 1/4 on W face
dug pits 18x18x13 ins E. & W. of stone 5 1/3 ft
dist and raised a mound of earth 1 1/3 ft high
3 1/3 ft base alongside
46.05 Ravine course S.E.
48.05 Ravine course S.E.
79.66 The cor to secs 1. 2. 11. & 12.
Land rolling
Soil dark clay loam 1st rate farm land
In the ravines good grass is found suitable
for hay.
No timber

At 9 a.m. AM diurnal change has decreased the
Va 3'.
N 0° 1' W on a random line bet secs 1 & 2.
Va 12° 10' E.
40.00 Set temporary 1/4 sec cor.
80.33. Intersect the N boundary of the Township
38 links E of the cor to secs 1. 2. 35 & 36. which
is a hard sandstone firmly set and properly
marked and witnessed as heretofore described
in notes of survey of exterior boundaries of T 34
N R 13 W.
Thence Run
S 0° 17' E on a true line bet secs 1 & 2.
With same Va
Over gently rolling ground.
16.33. Ravine 8 ft deep course S.E.
40.33. Set a hard sandstone 20x13x5 ins 15 ins in the
ground for 1/4 sec cor Marked 1/4 on W face dug
pits 18x18x13 ins N. & S. of stone 5 1/3 ft dist &
raised a mound of earth 1 1/3 ft high 3 1/3 ft base
alongside
51.95 Drain course E.
80.23 The cor to secs 1. 2. 11. & 12
Land gently rolling with a gentle S. slope

7.5 Ch 1/2

Subdivisions T 34 N R 13 W Cont'd

Chains Soil is dark clay loam 1st rate
There are two settlers in Sec 1.
Aug 27nd 1890.

Aug 21st 1890. At 3.30 PM. I go to the cor to secs 2. 3. 34 & 35 on the S boundary of the Township which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 13 W.
I take a bearsight on a flag on S boundary of sec 35 and lay off an angle of 90° to the North.
Which gives the direction of the true Meridian
And its magnetic bearing is N 12° 03' W
Which corrected by table on page 56 of the printed manual of instructions gives for mean declination 13° 07' E
Thence I run
N 0° 2' W bet secs 34 & 35
Va 13° 03' E
Over smooth table land
33.00 Edge of table land bears E & W. Descend.
40.00 Set a hard sandstone 17x10x3 ins ins - 13 ins in the ground for 1/4 sec cor. Marked 1/4 on W face. dug pits 18x18x13 ins N & S of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside.
47.50 Ravine course N E 10 ft deep &
Enter East timber
56.70 Ravine course E.
64.50 Enter Ponca crest. Valley bears E & W.
Through scattering timber
70.00 Enter cor pits bis N E & S W
80.00 Set a hard sandstone 21x18x 8 ins 16 ins in the ground for cor to secs 26 27. 34 & 35 Marked. 1 notch on S edge & 2 on E face dug pits 18x18x 13 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land. - S 33 chs smooth table land
Soil dark clay loam 1st rate. Note. This Cor stands at edge of cornfield on N W side

Subdivisions T 34 N R 13 W Cont'd

Chains N slope of hills gravelly 3rd rate
Valley sand and clay loam 1st rate
Timber - There is east timber along the bluffs
East & West of line
There is a settler in the S E 1/4 & 2 in the N W 1/4 of sec 35.

East on a random line bet secs 26 & 35
Va 12° 03' E.
40.00 Set temporary 1/4 sec cor.
80.12 Intersect the N & S line 12 links North of the cor to secs 25. 26. 35 & 36
Thence I run
N 89° 55' W on a true line bet secs 26 & 35
With same Va
Over rolling ground. Descend steep hill
.85 Ravine course N
6.15 Gulch course N E About 5 chs long 15 ft deep.
6.50 Edge of table land bears N & S
Over narrow table land
20.00 Leave table bears N & S. - Descend.
32.60 Ravine course S W. Near foot of bluff below.
East timber grove.
35.00 Leave bluffs and enter valley bears N W & S E.
40.06 Set a hard sandstone 20x13x4 ins. 15 ins in the ground for 1/4 sec cor. Marked 1/4 on N face. dug pits 18x18x13 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
60.70 Ponca crest bluffs 8 ft high. Right angled width 50 links running water 15 links wide 6 ins deep runs S E
69.00 Enter Cor pits bis S E & N W
80.12 The cor to secs 26 27. 34 & 35.
Land - rolling E 1/2 1st & 3rd rate
Valley is dark sandy and clay loam 1st rate
Timber - There is east timber along the bluffs in N E 1/4 Sec 35. and scattering line West of the crest. Along the Crest Willow brush, box elder cottonwood and ash timber.
There is a settlers dugout in N E 1/4 sec 35 about

Subdivisions T 34 N R 12 W Contd

Chains 2 chs S of line at 32 chs
The settlers in sec 35 have small herds of cattle and have broken considerable prairie which is planted in corn.

N 0° 2' W bet secs 26 and 27.
Va 12° 03' E.
Over valley land
9.40 Ponca creek - banks 8 ft high 50 links wide - running water 15 links wide 6 ins deep bears N. E.
25.00 Leave valley bears N W and S E
Ascend bluffs
31.60 Top of sharp gravelly ridge bears E and W.
Descend.
36.30 Ravine course W. 25 ft lower than ridge
Ascend
40.00 Set a hard sandstone 18x12x4 ins 12 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18x18x12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
This cor stands on a S W slope of hill. N. E of cor is the round point hill (Gravelly on sides and top) about 150 chs dist and 30 ft higher than cor.
61.75 Ravine course W. Ascend.
71.50 Top of table land bears E and W.
Over level point of table
80.00 Set a sandstone 22x10x4 ins 16 ins in the ground for cor to secs 22.23.26 and 27. Marked 2 notches on S Edge and 2 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
Land Valley clay loam 1st rate
balance broken mixed sandy gravelly loam 2nd and 3rd rate
No timber

At 5.00 PM. Diurnal change has increased Va 3'

Subdivisions T 34 N R 12 W Contd

Chains East on a random line bet secs 23 and 26.
Va 12° 06' E.
40.00 Set temporary 1/4 sec cor.
80.76 Intersect the N and S line 4 links N of the cor to secs 23.24.25 and 26.
Thence I run
N 89° 58' W on a true line bet secs 23 and 26
With same Va
Over rolling tableland Ascending
30.00 Begin gradual descent.
38.55 Ravine lined with sandstone course N W 8 ft deep.
40.13 Set a hard sandstone 18x10x3 ins 12 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
49.30 Ravine course N W.
69.80 Ravine 35 ft deep course S
75.05 Ravine course S E 35 ft deep
Ascend steep hill
80.05 Edge of E end of table land bears N and S.
80.26 The cor to secs 26 27 34 and 35
Land rolling and broken
E 40 chs smooth table land rolling
Soil is dark clay loam 1st rate
W is broken clay soil 3rd rate farm land
No timber
Stone - There is some large flag stone in the ravine at 38.55 chs
Aug 21st 1890.

At 12.00 M. I observe latitude at cor to secs 22.23.26 and 27 and find it to be 42° 54' N.
At 1.00 PM Aug 22nd from the above cor. I take a backsight to the South bet secs 26 and 27 and find it has a magnetic bearing of S 12° 04' E
The Va is 12° 03' E.
N 0° 2' W bet secs 22 and 23
Va 12° 02' E

Chains Over broken ground
.35 N E edge of table land. begin descent.
4.20 Ravine 6 ft dep course E
25.00 Ravine course S E 25 ft dep Ascend
37.25 Head of ravine 6 ft dep. course S E
Enter rolling table land
40.00 Set a hard sandstone 17×13×3 ins 11 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
Ascend
80.00 On top of hill
Set a hard sandstone 23×20×4 ins. 18 ins in the ground for cor to secs 14. 15. 22. & 23 Marked 3 notches on S edge and 2 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land rolling S½ broken
Soil clay 3rd rate farm land.
N½ rolling coarse clay loam 1st rate
No timber

East on a random line bet secs 14 & 23.
Va 12° 52' E.
40.00 Set temporary 1/4 sec cor.
80.36 Intersect the N & S line 3 links N of the cor to secs 13. 14. 23 & 24.
Thence I run
N 89° 59' W bet secs 14 & 23.
With same Va
Over rolling prairie Ascending
2.00 Top of hill
15.55 Drain 3 ft dep course S W.
17.00 Drain 4 ft dep course S E.
40.18 Set a hard sandstone 18×13×4 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 4½ ft base alongside

Chains
41.05 Flat drain course S
48.35 Flat drain course S E.
Ascend hill to
80.36 The cor to secs 14. 15. 22. & 23
Land rolling
E½ clay loam 2nd rate farm land
W½ mon rolling & rougher
No timber
Stone – There are sandstone croppings in N E¼ of N W¼ sec 23 along the South bluff of flat drain at 48.35 chs

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At 2.30 P.M. local attraction has increased the Va 3'.
N 0° 2' W bet secs 14 & 15
Va 12° 05' E.
Over rolling prairie
16.00 Ravine course N W. 15 ft dep
33.00 Top of hill or ridge bears N W & S E. Descend
40.00 Set a hard sandstone 18×12×4 ins 12 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist ~~and~~ raised a mound of earth 1½ ft high 3½ ft base alongside
40.90 Ravine course N W. 30 ft dep
Ascend.
50.00 Top of ridge bears N W & S E.
Descend.
61.00 Ravine course N W.
66.15 Ravine course N W.
Ascend
73.00 Top of ridge bears N W & S E.
Descend
76.80 Ravine 25 ft dep course N W.
Ascend along West slope of hill over stony ground
80.00 On West slope
Set a hard sandstone 20×10×6 in (With a round hole about 1½ in diam penetrating the stone at an angle lengthwise with stone on South side) 15 ins in the ground for cor to secs

Subdivisions T 34 N R 12 W Contd

Chains 10. 11. 14 and 15. Marked 4 notches on S. edge and 2 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land rolling and broken
Soil is clay loam 3rd rate farm land
No timber
Stone - Around this cor there is considerable stone mostly on side hill in sec 14.

At 3.00 P.M. local attraction has increased Va 3'
East on a random line bet secs 11 and 14.
Va 12° 08' E.

40.00 Set temporary ¼ sec cor.
80.30. Intersect the N and S. line 12 links North of the cor to secs 11. 12. 13. and 14.
Thence I run
N 89° 55' W on a true line bet secs 11 and 14.
With same Va
Over rolling prairie. Gentle Ascent.
36.80 Ravine course N 8 ft deep
40.15 Set a hard sandstone 18×14×4 ins 12 ins in the ground for ¼ sec cor. Marked ¼ on N face dug pits 18×18×12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
60.80 Ravine course N.W. 20 ft deep
70.80 Ravine course N.W. 25 ft deep
Ascend
76.30 Top of stony hill
Descend to
80.30 The cor to secs 10. 11. 14 and 15.
Land rolling E² clay loam good 2nd rate
W² broken. Stony along the line
clay soil 3rd rate farm land
No timber

N 0° 2' W bet secs 10 and 11.
Va 12° 08' E.

Subdivisions T 34 N R 12 W Contd

Chains Over rolling and broken ground. Descend
5.50 Ravine course S.W. 25 ft deep Ascend
10.00 Top of hill
40.00 Set a hard sandstone 15×13×3 ins 10 ins in the ground for ¼ sec cor Marked ¼ on W face dug pits 18×18×12 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
42.90 Ravine course N.W. 10 ft deep
47.90 Ravine course S.W.
69.00 Top of hill. Enter smooth undulating prairie
80.00 Set a hard sandstone 24×12×6 ins - 18 ins in the ground for cor to secs 2. 3. 10 and 11. Marked 5 notches on S. Edge and 2 on E face. dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land rolling and broken.
S 70 chs broken by ravines poor land for farming
N 10 chs smooth prairie dark clay soil 1st rate
No timber

At 4.00 P.M. Journal change has increased the Va 3'.
Local attraction has decreased the Va 3'
East on a random line bet secs 2 and 11.
Va 12° 08' E.

40.00 Set temporary ¼ sec cor.
80.24 Intersect the N and S line at cor to secs 1. 2. 11. and 12
Thence I run
West on a true line bet secs 2 and 11.
With same Va
Over smooth undulating prairie
10.35 Ravine course S.W.
40.12 Set a hard sandstone 16×8×4 ins 11 ins in the ground for ¼ sec cor Marked ¼ on N face dug pits 18×18×12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

Subdivision T 34 N R 13 W. Cont'd

Chains
80.24 The cor to secs 2.3.10. & 11.
Land gently rolling. Smooth prairie
Soil Sandy clay loam 1st rate
No timber

N 0° 31' W on a random line bet secs 2 & 3.
Va 12° 08' E.

40.00 Set temporary 1/4 sec cor.
80.20 Intersect the N. boundary of the Township 1/4 links E of the cor to secs 2.3.34 & 35. Which is a hardsandstone firmly set and properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N. R 13 W.
Thence I run
S 0° 8' E on a true line bet secs 2 & 3
With same Va
Over gently rolling prairie
Ascending
200 Top of hill & Descend
22.55 Ravine course S W. 8 ft deep
40.20 Set a hard sandstone 30x13x4 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 base alongside
70.05 Ravine course S W. Heads 3 chs E of line
80.20 The cor to secs 2.3.10 & 11.
Land gently rolling
Soil clay loam 1st rate
No timber

At 7 oo AM Aug 23rd I go to the cor to secs 3.4. 33. & 34. on the S boundary of the Township which is a hardsandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N. R 13 W.
I set my compass over the center of the alum described corner & adjust it to a true

Subdivisions T 34 N R 12 W. Cont'd

Chains
Meridian by the Solar Attachment.
The magnetic bearing of the true meridian thus determined is N 12° 16' W.
Which corrected by table on page 56 of the printed manual of instructions gives for mean declination 12° 10' E.
Thence I run
N 0° 3' W bet secs 33 & 34
Va 12° 16' E.
Over gently rolling tableland
15.00 Ravine course N W.
26.05 Ravine course S E 10 ft lower than tableland
32.50 Ravine course S E 10 ft lower than tableland
40.00 Set a hard sandstone 24x10x3 ins 18 ins in the ground for 1/4 sec cor Marked 1/4 on W side dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
68.00 Drain 5 ft deep Course S E.
80.00 Set a hard sandstone 24x10x3 ins 18 ins in the ground for cor to secs 27.28.33 & 34. Marked 1 notch on S edge and 3 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 1 1/2 ft base alongside
Land S^d some broken by ravines
Soil clay 2nd rate land
N^d gently rolling clay loam 1st rate
No timber

East on a random line bet secs 27 & 34.
Va 12° 16' E.

40.00 Set temporary 1/4 sec cor
80.04 Intersect the N & S line 20 links N of the cor to secs 26 27 34 & 35.
Thence I run
N 89° 51' W est on a true line bet secs 27 & 34
With same Va
Over level valley through scattering oak timber
1400 Leave valley and enter sandy and gravelly

Subdivisions T 34 N R 12 W Cont'd

Chains	
	bluffs. bears N.W and S.E.
19.00	Top of ridge bears S.E and N.W.
24.05	A spring branch. swampy and boggy runs S.E.
29.05	Same branch wet and boggy course. N.E.
30.00	Leave oak timber
35.05	Enter sandy ravine course. S.E.
	Thence up ravine to
38.55	Leave sandy ravine course to the line S.E.
40.02	Set a hardsandstone 15×14×3 ins - 10 ins in the ground for 1/4 sec cor. Marked 1/4 on N face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
47.00	Top of hill. Enter table land bears N.W and S.E.
	Over smooth table land.
80.04	The cor to secs 27. 28. 33. and 34.
	Land Valley. clay loam 1st rate
	Hill slope is sandy and gravelly 3rd rate.
	Table land is dark clay loam 1st rate
	There is fine oak timber in N.E 4 sec 34.
	There is a settler in S.W 4 and in N.E 4 sec 34.

At 8.30 AM Diurnal change has decreased the Va 2' N 0° 3' W bet secs 27. and 28.

Va 12° 14' E.

	Over smooth table land
33.00	Leave tableland. Enter broken land bears N.W and S.E. Descending
40.00	Set a hard sandstone 15×12×3 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
45.50	Ravine course N.E. 25 ft deep
50.00	Top of gravelly ridge bears E and W. Descend
60.00	Enter creek valley bears E and W.
70.50	Creek dry on line. Water hole W of line and running Water East of line course S.E.
71.50	Leave valley and ascend sloping East end of a narrow ridge bears E and W.

Subdivisions T 34 N R 12 W Cont'd

Chains	
76.50	Top of abrupt hill or ridge.
	ridge terminates 1.50 chs East of line
80.00.	On N.E slope.
	Set a hard sandstone 18×16×3 ins 12 ins in the ground for cor to secs 21. 22. 27. and 28. Marked. 2 notches on S edge and 3 on East face dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
	An oak 4 ins diam bears N. 73° 15' E. 76 links dist Marked S. 22 B.T.A. scrub oak 5 in diam bears N 9° W 86 lks (dist Marked, Sn. B.T.)
	Table land undulating surface clay loam 1st rate
	Hill slopes gravelly 3rd rate
	Valley land dark clay loam 1st rate
	Note - The point of ridge on which sec cor stands is a Clay 2nd bench under or at foot of East slope of hill West of line
	No timber

East on a random line bet secs 22. and 27.

Va 12° 14' E.

40.00	Set temporary 1/4 sec cor.
80.06	Intersect the N and S line 19 links North of the cor to secs 22. 23. 26 and 27.
	Thence I run
	N. 89° 52' W. on a true line bet secs 22 and 27
	With same Va
	Over smooth S. end of tableland
10.00	Descend into deep ravine. 40 ft deep
19.95	Ravine course S.
27.20	Ravine course S.E. 40 ft deep
31.55	Top of high ridge bears N and S.
40.03.	Set a hard sandstone 20×10×3 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on N. face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
49.00	Leave hills and enter valley bears N.W and S.E.
54.05	Center of Ponca creek. banks 8 ft high 50 links wide. running water 10 links wide 6 in deep runs S.E.

Chains
75.30 Leave valley & ascend bluffs bears N.W. & S.E.
79.55 Top of abrupt clay bank 10 ft high
Gradual ascent to
80.06 The cor to secs 21. 22. 27 & 28.
Valley land undulating clay & sandy soil 2nd rate
Hills are gravelly and stony 3rd rate
Timber - Plum, dogwood, Willow brush, box elder & cottonwood along Ponca creek.
There is oak along south bluff below the mouth of the dry creek in N.E. ¼
There is a settler in N.E. ¼ sec 27.

N 0° 3' W bet secs 21 & 22.
Va 12° 14' E.
Over descending ground
50 Descend abrupt bluffs through oak bushes bears N.W. & S.E.
400 Enter Ponca creek valley bears N.W. & S.E.
1600 Center of Ponca creek banks 8 ft high 40 links wide running water 10 links wide 6 in deep runs E.
3550 Ascend bank 3 ft high bears E & W.
4000 Set a hard sandstone 18x13x4 ins. 12 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
4300 Leave valley & ascend foot hills bears N.E. & S.W.
5500 Ravine course S.E. - Ascend bluffs
8000 Set a hard sandstone 27x15x4 ins 21 ins in the ground for cor to secs 15 16 21 & 22. Marked S. notches on S edge & 3 on E face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 3 ft high 4½ ft base alongside
Valley land sandy & clay soil 1st rate
Bluffs on N side are stony 3rd rate
Timber - Some oak brush & trees along S. bluff on line & in sec 16. Willow, plum brush, box elder & cottonwood

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Chains
At 10 30 am. Local attraction has increased the Va 3'
Needle has returned to its mean place
East on a random line bet secs 15 & 22.
Va 12° 13' E.
40.00 Set temporary 1/4 sec cor.
80.04 Intersect the N & S line 15 links N of the cor to secs 14. 15. 21. & 22.
Thence I run
N 89° 54' W on a true line bet secs 15 & 22.
With same Va
Over descending ground
1195 Ravine course S
24.00 Leave table land bears N & S. Descend bluffs
38.05 Ravine course N.W.
40.02 Set a sandstone 20x16x3 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
53.00 Leave hills & enter valley bears N & S.
63.05 Dry creek. Water in holes course S.E.
63.50 Leave valley and ascend high hill 100 ft high bears N & S.
76.45 Top of stony ridge bears N.W. & S.E. Descend
80.04 The cor to secs 15 16 21 & 22.
Land rolling and broken
Soil of valley & table land dark clay loam 1st rate balance is 2nd & 3rd rate.
Timber There is some small clumps of Elm trees in bends of the Dry creek along W bluff
Stone - There is a stony butte in N.E. ¼ of sec 15 & the S.E. end of ridge or point of the table land on which the N.W. cor stands is stony
There is an Indian water signal of stone on the extreme S.E. point of ridge about 6 chs S.E. from sec cor.

At 12 00 M Observe latitude on instrument and find it to be N 42° 55'.

Subdivisions T 34 N. R 12 W. Contd

Chains At 2.00 P.M. Journal change has increased the Va 5'

N 0° 3' W bet secs 15 & 16

Va 12° 08' E.

Gentle ascent

4.00 Top of ridge bears N W & S E - Descend.

29.00 Ravine course N E.

39.40 Ravine course S E.

40.00 Set a hard sandstone 20x10x4 ins 15 in in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

55.95 Ravine course S E.

65.50 Ravine course S E.

77.25 Ravine course E.

80.00 Set a hard sandstone 20x10x4 ins 5 in a mound of stone 1 1/2 ft high 3 ft base for cor to secs 9.10. 15. & 16. Marked 4 notches on S edge & 3 on East face & raised a mound of stone 3 ft high 4 1/2 ft base alongside pits impracticable

Note - This cor stands on N E slope of a stony butte near the foot. Side of butte is covered with sandstone. butte is capped with sandstone

Land rolling surface rough & broken

Soil clay 3rd rate farm land

East on a random line bet secs 10 & 15

Va 12° 08' E

40.00 Set temporary 1/4 sec cor.

80.02 Intersect the N & S line 2 links S of the cor to secs 10-11-14 & 15.

Thence I run

S 89° 59' W on a true line bet secs 10 & 15.

With same Va

Over rolling ground

1.37 Ravine course N W.

32.90 Ravine course N W.

39.00 Ravine course N W.

Subdivisions T 34 N R 12 W. Contd

Chains 40.00 Set a hard sandstone 24x15x5 ins 18 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5 1/2 ft dist & raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

Enter valley at 1/4 sec cor bears N & S

49.00 Dry crust course S.

54.00 Leave valley & ascend hills bears N & S.

65.00 Butte 5 chs to the N & E

68.50 Ravine course S E.

74.60 Top of ridge bears S E & N W. Ascend

79.50 Ravine course S E. Ascend 6 ft to

80.02 The cor to secs 9 10. 15. & 16.

Valley land dark clay loam 1st rate

Hills rough & broken 3rd rate

No timber

West of Dry crust and North of line is Rocky Butte about 75 ft high

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N 0° 3' W bet secs 9 & 10

Va 12° 08' E.

Over rolling & broken land Ascend

8.00 Top of ridge bears N W & S E Descend.

13.35 Ravine course S E

28.00 Ravine course S E

40.00 Set a hard sandstone 17x10x5 ins 8 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist & raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

45.10 Ravine course N E

58.90 Mouth of ravine course E

60.00 Ravine course S E

67.00 Top of ridge Descend.

74.00 Ravine course S E Ascend.

80.00 On top of flat point of table land bears N W & S E

Set a hard sandstone 30x17x3 ins 21 ins in the ground for cor to secs 3.4.9 & 10. Marked 5 notches on S edge & 3 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist & raised a mound of earth 2 ft high 2 1/2 ft base alongside

Land rough & broken by ravines.

Subdivisions T 34 N R 12 W Contd

Chains Soil clay loam 3rd rate farm land
No timber

At 4.30 PM. Diurnal change has increased the Va 3'
East on a random line bet secs 3 & 10
Va 13° 11' E.

40.00 Set temporary 1/4 sec cor.
79.98 Intersect the N & S line 2 links N of the cor to secs 2.3.10 & 11.
Thence I run
N 84° 59' W on a true line bet secs 3 & 10
With same Va
Over rolling descending ground.
20.00 Leave table land bears N & S Descend.
35.00 Ravine 10 ft deep course S. Ascend.
39.99 On top of a gravelly hill
Set a hard sand stone 13×9×5 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside
Descend.
51.80 Leave hills and enter valley bears N & S.
52.05 Dry creek course S W.
58.00 Leave valley and enter hills bears N & S.
69.00 Drain S E
78.00 Top of hill or table land bears N W & S E
79.98 The cor to secs 3 & 10 & 10.
Land E 20 chs table land smooth clay soil 1st rate
Valley black soil 1st rate
balance is 2nd & 3rd rate
No timber

N 0° 3' W on a random line bet secs 3 & 4.
Va 12° 11' E.

40.00 Set temporary 1/4 sec cor.
80.21 Intersect the S boundary of the township 6 links East of the cor to secs 3 & 4. 33 & 34. Which is a sandstone firmly set & properly marked and witnessed as heretofore described in notes of.

Subdivisions T 34 N R 12 W Contd

Chains Survey of exterior boundaries of T 34 N R 12 W
Thence I run
S 0° 5½' E on a true line bet secs 3 & 4.
With same Va
Over rolling ground. Descend.
7.20 Ravine course E. 8 ft lower than cor. Ascend
13.50 Ravine course S E
24.70 Ravine course S E
40.21 Set a hard sandstone 20×12×3 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base along side
43.90 Ravine 15 ft deep course S E
54.05 Ravine course S E. 15 ft deep
62.80 Ravine course E Ascend
77.20 Top of table land bears N W & S E.
80.21 The cor to secs 3.4.9 & 10
Land rolling & broken
Soil dark clay loam 3rd rate
Pole land 1st rate
No timber
Aug 23rd 1890.

At 7.00 AM Aug 24th I go to the cor to secs 4. 5. 32. & 33. on the S boundary of the Township which is a hard sandstone firmly set and properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W.
I set my compass over the center of the corner & adjust it to a true Meridian by the Solar Attachment. The magnetic bearing of the true Meridian is N 12° 16' W. Which corrected by table on page 56 of the manual of instructions gives for local mean declination 12° 10' E
Thence I run
N 0° 3½' W bet secs 32 & 33.
Va 17° 16' E
Over gently rolling table land.

Subdivisions T 34 N R 12 W Cont'd

Chains

3.50 Drain course N E

21.55 Drain course E

40.00 Set a hard sandstone 20×15×5 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

80.00 Set a hard sandstone 22×13×3 ins 15 ins in the ground for cor to secs 28. 29. 32 and 33. Marked. 1 notch on S edge and 4 on E face dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside

Land undulating smooth prairie

Soil dark clay loam 1st rate

No timber

East on a random line bet secs 28 and 33

Va 12° 16' E.

40.00 Set temporary 1/4 sec cor

80.02 Intersect the N and S line at cor to secs 27. 28. 33 and 34

Thence I run

W on a true line bet secs 28 and 33.

With same Va

Over undulating ground.

15.35 Drain course S E

40.01 Set a hard sandstone 18×10×3 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

80.02 The cor to secs 28. 29. 32 and 33.

Land undulating smooth table land.

Soil dark clay loam 1st rate

No timber

There is a settler in S W 4 sec 33.

N 0° 3 1/2' W bet secs 28 and 29.

Va 12° 16' E.

Over gently rolling tableland

40.00 Set a hard sandstone 16×8×4 ins 11 ins in the

Subdivisions T 34 N R 12 W Cont'd

Chains

Ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

65.00 Leave table land and Descend

80.00 Set a hard sandstone 20×13×3 ins 15 ins in the ground for cor to secs 20. 21. 28 and 29. Marked 2 notches on S and 4 on E face dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside

Table land smooth surface gently rolling

Soil dark clay loam 1st rate

N 15 chs broken sandy and gravelly 3rd rate

No timber

East on a random line bet secs 21 and 28.

Va 12° 16' E.

40.00 Set temporary 1/4 sec cor

80.06 Intersect the N and S line 9 links North of the cor to secs 21. 22. 27 and 28.

Thence I run

N 89° 56' W on a true line bet secs 21 and 28.

With same Va

Over rolling sandy ground. Ascend.

5.00 Top of ridge bears N W and S E

16.00 Leave hills and enter valley bears N E and S W.

40.03 Set a hard sandstone 18×13×3 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

47.75 Dry creek. Water in holes. Water hole on line 20 links wide course S.

53.00 Leave valley and ascend gradual sloping bluffs bears N W and S E.

67.35 Ravine course N E

80.06 The cor to secs 20. 21. 28 and 29

Valley land dark clay loam 1st rate

Hills sandy 3rd rate

Timber – There is a clump of oak timber along

Subdivisions T 34 N. R 12 W Contd

Chains a spring gulch in South bluff SW from the 1/4 sec cor
A settler has a cabin at head of timber in the spring gulch in NW 4 sec 28.

At 10.30 am the needle has returned to its mean place
N 0° 3 1/2' W bet secs 20 and 21.
Va 12° 10' E.

Over descending ground
3.20 Drain (Sandy) Course N E
12.30 Enter valley bears N E and S W.
24.00 Dry creek. Water in holes. Water on line 10 links wide course E. Small clump of white willows just West of line
24.50 A pond of water about 1.50 chs long 75 links W of line
26.00 Leave valley and ascend gravelly and sandy hill bears E and W.
40.00 Set a hard sandstone 20x12x3 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
41.80 Top of bluff. S edge of table land bears E and W.
53.00 Leave table land bears E and W Descend.
60.00 Ravine course N W.
64.00 Same Ravine course N E
66.00 Enter valley and leave bluffs bears S E and N W.
80.00 Set a hard sandstone 20x12x4 ins 15 ins in the ground for cor to secs 16.17.20. and 21. Marked 3 notches on S edge and 4 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside from which
An oak 20 ins diam bears S 51 1/4 W 209 lks dist Marked T 34 N R 12 W S 20 B.T.
An oak 16 in diam bears S 4° E. —— 29 links dist
Marked T 34 N R 12 W S 21 B.T. This bearing tree stands on N edge of clay bank and about 3 or 4 ft higher than cor No other trees in limits.
Land. Valleys are dark clay loam 1st rate
Hill slopes sandy 3rd rate
Timber W of sec cor in sec 20.

Subdivisions T 34 N R 12 W Contd

Chains At 1.00 P.M. local attraction has increased Va 3'
The magnetic bearing of the last line run is S 12° 11' E.
East on a random line bet secs 16 and 21.
Va 12° 08' E
40.00 Set temporary 1/4 sec cor.
80.06 Intersect the N and S line 28 links N of the cor to secs 15.16.21. and 22.
Thence I run.
N 89° 48' W. on a true line bet secs 16 and 21.
With same Va
Over rolling and broken ground Descend.
3.65 Ravine course S. Ascend.
28.05 Top of hill bears N and S. - Descend.
40.03 Set a hard sandstone 18x10x3 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside. From which
An oak 16 ins diam bears N 64° 10' W 375 links dist. Marked. 1/4 S B.T.
42.95 Gulch course S W.
48.45 Leave bluffs and enter valley bears N W and S E.
50.05 Ponca creek. Banks. 8 ft high 60 links wide water channel 10 links wide runs 6 ins deep course S E.
Over level valley.
80.06 The cor to secs 16.17.20. and 21.
Valley land level sandy and clay loam 1st rate
Hills broken. Clay soil 3rd rate farm land.
Timber - Plum dogwood cherry and willow brush
Box elder, cottonwood, ash, and scattering oaks along the creek.

N 0° 3 1/2' W bet secs 16 and 17.
Va 12° 08' E

Over valley land
4.85 Ponca creek banks 8 ft high 40 links wide running water 15 links wide 6 ins deep runs N E.
25.75 Drain course S E.
31.50 Leave valley and ascend bluffs bears E and W.

Subdivisions T 34 N R 12 W — Contd

Chains

40.00 Set a hard sandstone 24×8×3 ins 18 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×17 ins N and S of stone 5½ and raised a mound of earth 1½ ft high 3½ ft base alongside

50.70 Ravine course S.W. Ascending

61.00 Top of hill

63.85 Ravine 25 ft deep course W.

80.00 On West slope of point of ridge

Set a hard sandstone 18×14×4 ins 12 ins in the ground for cor to secs 8. 9. 16 and 17. Marked 4 notches on S edge and 4 on E face dug pits 18×18×17 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land Valley. Sand clay loam 1st rate

Hills rolling clay soil 2nd and 3rd rate

Timber. Cherry. plum. dogwood and willow brush boxelder cottonwood ash and a few scattering oaks along the crest.

East on a random line bet secs 9 and 16.

Va 12° 08' E.

40.00 Set temporary 1/4 sec cor.

80.08 Intersect the N and S line 42 links North of the cor to secs 9. 10. 15 and 16.

Thence I run

N 89° 42' W on a true bet 9 and 16.

With same Va

Ascend rocky bluff

250 Top of hill. Summit of stone butte 200 chs South

Cross narrow table land. Descending

264.40 Ravine course S.

355.25 Ravine course S. Ascend

400.4 Set a hard sandstone 18×12×4 ins. 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×17 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside. On S. end of S sloping hill or point bet the ravines

427.15 Ravine course S.E. Ascending

627.10 Top of hill

Subdivisions T 34 N. R 12 W. — Contd

Chains

71.05 Ravine course N.W. Descend.

80.08 The cor to secs. 8. 9. 16 and 17.

Land rolling and broken Soil clay 2nd, 3rd rate

No timber

There is stone (hard sandstone flags) on the butte in N.E cor of sec 16 and also some along the ridges in N.W.

At 4.00 P.M. diurnal change has increased Va 3'

N 0° 3½ W bet secs 8 and 9.

Va 12° 11' E.

Over rolling and broken ground. Descend.

150 Ravine course W

790 Ravine course N.W.

277.70 Ravine course N.W.

378.5 Ravine course W. Ascending along slope of hill

400.00 Set a hard sandstone 24×12×3 ins 18 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×17 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

530.00 Top of hill. South end of ridge

644.65 Ravine course S.E heads 1 ch W of line

Ascend to smooth undulating table land at

660.00 Enter table land.

800.00 Set a hard sandstone 24×12×5 ins 18 ins in the ground for cor to secs 4. 5. 8 and 9. Marked 5 notches on S edge and 4 on E face dug pits 18×18×17 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land. S 66 chs rolling and broken gray colored clay soil 3rd rate.

N 14 chs table land smooth and undulating dark clay loam 1st rate.

No timber

At 4.30 P.M. local attraction has increased Va 2'

East on a random line bet secs 4 and 9.

Va 12° 13' E.

Chains

40.00 Set a temporary 1/4 sec cor.

80.12 Intersect the N. & S. line 34 links N of the cor to secs 3 & 9. & 10

Thence I run

N 89° 45' W on a true line bet secs 4 & 9.

With same Va

Over smooth undulating table land.

3.20 Ravine course S.E. 10 ft deep

40.06 Set a hard sandstone 17x15x3 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E. & W. of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

80.12 The cor to secs 4. 5. 8. & 9.

Land undulating Soil dark clay loam 1st rate

No timber

N 0° 3 1/2' W on a random line bet secs 4 & 5.

Va 12° 13' E.

40.00 Set temporary 1/4 sec cor.

79.98 Intersect the N boundary of the Tp 7 links W of the cor to secs 4. 5. 32. & 33. Which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W.

Thence I run

S 0° 04' E on a true line bet secs 4 & 5.

With same Va

Over level valley

8.00 Leave valley and ascend bluffs

25.00 Ravine course N.W.

39.98 Set a hard sandstone 22x8x3 ins 16 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

79.98 The cor to secs 4. 5. 8 & 9.

Valley land level black soil 1st rate

Table land dark soil 1st rate N slope of hill 2nd rate. No timber

Aug 24th 1890.

Chains

At 7.00 AM Aug 26th I go to the cor to secs 31 & 32 on the S. boundary of the Township which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W.

I set my compass on the center of the corner and adjust it to a true meridian by the solar apparatus.

The magnetic bearing of the true meridian thus determined is N 12° 21' W. which corrected by table on page 55 of the manual of instructions gives for local mean declination 12° 16' E.

Thence I run

N 0° 4 1/2' W bet secs 31. & 32.

Va 12° 21' E.

Over gently rolling table land. Descending

40.00 Set a hard sandstone 15x12x4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

80.00 Set a hard sandstone 20x13x5 ins 15 ins in the ground for cor to secs 29. 30. 31. & 32 Marked 1 notch on S edge & 5 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside

Land gently rolling Soil dark clay loam 1st rate.

No timber

East on a random line bet secs 29 & 32.

Va 12° 21' E.

40.00 Set temporary 1/4 sec cor.

80.02 Intersect the N. & S. line 11 links N of the cor. to secs 28. 29. 32 & 33.

Thence I run

N 89° 55' W on a true line bet secs 29 & 32.

With same Va

Over gently rolling ground

40.01 Set a hard sandstone 15x7x6 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on S. face

Subdivisions T 34 N R 12 W. Cont'd

Chains dug pits 18×18×12 ins E & W of stone 5½ ft dist & raised a mound of earth 1½ ft high 3½ ft base alongside

80.02 The cor to secs 29. 30. 31. & 32.

Land gently rolling.

Soil dark clay loam 1st rate

No timber

West on a random line bet secs 30 & 31

Va 12° 21' E.

40.00 Set temporary ¼ sec cor.

79.25 Intersect the W boundary of the Township 8½ links N of the cor to secs 25. 30 31. & 36. which is a hard sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W. Mound totally destroyed by cattle.

I rebuild mound 1½ ft high 3½ ft base alongside

Thence I run

N 89° 56½' E on a true line bet secs 30 & 31.

With same Va

Over gently rolling prairie

39.25 Set a hard sandstone 18×12×4 ins 12 ins in the ground for ¼ sec cor Marked ¼ on N face dug pits 18×18×12 E & W of stone 5½ ft dist & raised a mound of earth ½ ft high 3½ ft base alongside

Over undulating prairie

47.35 Drain course N E.

79.25 The cor to secs 29 30 31. & 32.

Land undulating E^r – W^r gently rolling

Soil dark clay loam 1st rate

At 9.30 AM. Diurnal change has decreased Va 2'

N 0° 4½' W bet secs 29 & 30.

Va 12° 19' E.

Over smooth level prairie

39.90 North edge of smooth prairie

Descend abruptly 5 ft to

40.00 Set a hard sandstone 18×12×3 ins 12 ins in the

Subdivisions T 34 N R 12 W Cont'd

Chains ground for ¼ sec cor Marked ¼ on W face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

Descend along broken edge of ravine

49.00 Ravine 8 ft deep course N.W.

54.90 Enter valley bears N.E. & S.W.

55.00 A Drycreek course N.E. Water in holes

56.15 Leave valley and enter low bluffs bears N.E. & S.W.

63.00 Ravine 8 ft deep course E.

80.00 Set a hard sandstone 20×12×3 ins 15 ins in the ground for cor to secs 19. 20. 29. & 30 Marked 2 notches on the S edge & 5 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base along side – Cor stands half way up E slope of hill

Land level & rolling S^r level dark clay loam 1st rate

N^r broken by dry creek & ravines 3rd rate

No timber

East on a random line bet secs 20 & 29.

Va 12° 19' E.

40.00 Set temporary ¼ sec cor.

80.08 Intersect the N & S line 17 links S of the cor to secs 20. 21. 28 & 29.

Thence I run

S 89° 53' West on a true line bet secs 20 & 29.

With same Va

Over gently rolling N slope of sandy hills

Descend

2.20 Sandy Ravine course N.

13.10 Top of gravelly hill 15 ft high bears N & S

26.10 Flat drain course N. 6 ft deep

37.60 Drain 8 ft deep course N.

39.10 Drain 8 ft deep ~~8 ft deep~~ course N.

40.04 Set a hard sand stone 20×10×3 ins 15 ins in the ground for ¼ sec cor. Marked ¼ on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

Subdivisions T34 N R12 W Contd

Chains
44.10 Leave foot hills and enter valley bears N.E. & S.W.
1 ch south of line is foot of N. end of stone butte covered with broken sandstone flags.
52.10 A. Dry creek course N.E.
54.05 Top of ridge about 8 ft high covered on top with broken sandstone flags bears N and S. Descend steep bank of ridge and enter the valley bears N and S.
54.50 At foot of bank or ridge. Same dry creek course S.E.
59.10 Same Dry creek course S.E. from N. bend
Thence up valley.
71.00 Leave valley and ascend hills bears N.E. & S.W.
71.60 Mouth of ravine course S.E.
76.70 Ravine course S.E.
78.60 Short gulch course S.E.
80.08 The cor to secs 19.20. 29. & 30.
Land. In E2 is along rolling N slope of hills
Soil sandy and gravelly 3rd rate
W2 is along Dry creek. Valley land is black soil 1st rate. bluffs 3rd rate
Stone The stony butte in N.E. cor of N.E. of N.W.4 - sec 29. is covered with hard sandstone - broken up -
There is also sandstone on the ridge N of the line at 54.05 chs
No timber
There is a settler in S.W.4 sec 29.

At 2.00 P.M. the magnetic bearing of the line bet secs 29. & 30. is S 12° 14' E and the Va 12° 10' E
West on a random line bet secs 19 & 30.
Va 12° 10' E.
40.00 Set temporary 1/4 sec cor.
79.17 Intersect the W boundary of the Tp 26 links N of the cor to secs 19.24.25. & 30. which is a hard sand stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N. R12 W.
The mound is totally destroyed by cattle.
I rebuild the mound 1 1/2 ft high 3 1/2 ft base along side
Thence I run

Subdivision T34 N. R12 W. Contd.

Chains N 89° 49' E on a true line bet secs 19 & 30.
With same Va
Over rolling prairie
39.17 Set a hard sandstone 18×12×4 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face ing pits 18×18×12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
56.32 Ravine course S.E.
75.80 Begin descending
79.17 The cor to secs 19.20. 29 & 30.
Land rolling Soil dark clay loam 1st rate
No timber
There is a settler in S.E.4 sec 30.

N 0° 41 1/2' W. bet secs 19 and 20.
Va 12° 10' E.
Over rolling prairie
1.70 Ravine course S.E. 10 ft deep
10.15 Ravine course S.E.
17.00 Top of ridge or narrow strip of table land. bet Dry creeks bears E & W.
Descend to
32.00 Enter valley bears E and W. Small clump of timber E of line 1 ch.
39.15 Dry creek course S.E.
39.60 Leave valley bears N.W. and S.E. and
Ascend steep bluff 30 ft high
40.00 On S.W. slope of steep hill.
Set a hard sandstone 16×11×4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on W face ing pits 18×18×12 N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
41.20 Top of steep bank bears S.E. and N.W.
47.50 Ravine course S.E.
60.90 Short ravine course S.E. 5 ft deep
62.00 Enter smooth level table land. bears E and W.
80.00 Set a hard sandstone 27×15×4 ins 21 ins in the ground for cor to secs 17.18.19. and 20. Marked 3 notches on S edge and 5 on E face ing pits 18×18×12 ins in each

Chains sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land level and rolling. Valley is narrow.
Soil dark clay loam 1st rate.
Good hay is being cut in valley E & W of line
Table land is dark clay soil 1st rate
balance of land is broken
Timber There is a small clump along bluff S side of the Dry Creek.

At 7.30 AM. diurnal change has increased Va 2'.
Local attraction has increased Va 3'
East on a random line bet secs 17 & 20.
Va 12° 15' E.

40.00 Set temporary ¼ sec cor.
80.10 Intersect the N & S line 7 links S of the cor to secs 16.17 20. & 21.
Thence I run
S 89° 57' W on a true line bet secs 17 & 20.
With same Va
Over valley and through east timber
17.05 Ponca creek runs N.E. 30 lks wide 10 lks deep bank abrupt. Clay 8 ft high.
18.90 Same creek 25 links wide runs N.E.
20.60 Leave right bank of Ponca creek and ascend a steep high clay bluff through bushes vines & trees and leave valley bears. N W & S E.
24.00 Leave timber and brush
33.40 Top of hill
Over rolling N sloping hills
40.05 Set a hard sandstone 16x10x4 ins 11 ins in the ground for ¼ sec cor. Marked ¼ on N face dug pits 18x18x12 E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
40.40 Ravine 4 ft lower than cor course N.
46.05 Ravine course N.
55.15 Ravine course N.
60.00 Leave broken land and enter smooth table land bears N W & S E.
78.55 Center of short drain 5 ft deep course N. heads

Chains 1 ch south of line
80.10 The cor to secs 17.18.19 & 20
Land level and rolling a
Valley clay soil 1st rate
Table land is level dark clay loam 1st rate
balance of land is broken, gravelly North sloping hills. The ravines are generally only a few ft deep - gradual sloping sides. 4th rate
Timber There is some fine timber in the N. E¼ of sec 20. Box elder, cottonwood and ash. principally the latter.
There is a settlers cabin in the creek valley in N. E¼ cor of sec 20
Aug 26th 1890

At 7.00 AM. Aug 27th I set my compass over the cor to secs 17.18.19. & 20 and adjusted it to a true meridian by the Solar apparatus. The bearing of the true meridian thus found is N 12° 24' W. The Va is 12° 24' E. Which corrected by table on page 55 of the printed manual gives for mean declination 12° 19' E.
West on a random line bet secs 18 & 19.
Va 12° 24' E.

40.00 Set temporary ¼ sec cor.
79.00 Intersect the W boundary of the Tp 19 links N of the cor to secs 13.18.19 & 20 which is a sandstone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N R12 W
Thence I run
N 89° 52' E on a true line bet secs 18 & 19
With same Va

Over smooth rolling table land
39.00 Set a hard sandstone 18x12x3 ins 12 ins in the ground for ¼ sec cor Marked ¼ on N face and raised a mound of earth 1½ ft high 3½ ft base alongside
79.00 The cor to secs 17.18.19. & 20.
Land gently rolling table land smooth surface

T34 R12

Subdivisions T34 N R12 W Cont'd

Chains Soil dark clay loam 1st rate
No timber

N 0° 4½' W bet secs 17 and 18.
Va 12° 24' E.

Over level land.
6.00 Leave table land and Descend bears E and W.
15.00 Drain course N.E.
34.00 Enter valley at foot of steep bluffs bears N E and S.W.
Over level valley
40.00 Set a hard sandstone 15×15×3 ins 10 ins in the ground for ¼ sec cor Marked ¼ on W face dug pits 18×18×12 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base along side. from which
An oak 10 ins diam bears S 13¼° W 59 links dist Marked B.T. ¼ S.
42.60 Ponca creek running water 8 links wide runs S.E.
48.60 Ascend bank 6 ft high to level ground bears E and W.
61.00 Leave valley bears N E and S W. Ascend.
67.00 Top of low ridge bears E and W. Descend.
68.00 Dry creek course S E. Enter valley
70.00 Same Dry creek course S.W.
71.50 Same Dry creek course S E.
73.70 Same Dry creek course S W.
77.60 Same Dry creek course E.
80.00 Set a hard sandstone 24×12×3 ins 18 ins in the ground for cor to secs 7.8.17. and 18. Marked 4 notches on the S edge and 5 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base along side. Sod house about 10 chs S.E.
Land level and rolling
Table land level. soil dark clay 1st rate
N hill slope sandy and gravelly 3rd rate
Valley is level and undulating dark sandy and clay soil south of creek 2nd rate
N of creek dark clay soil 1st rate
Timber. There is oak timber all along the

Subdivisions T34 N R12 W. Cont'd

Chains bluff. Plum and cherry brush in the valley on S side of creek willow brush box elder cottonwood and ash along the creek.
Along the dry creek is willows plumbrush box elder and Elm trees
There is a settler in N W¼ sec 20 - has large sod house milk house and stable

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At 9.00 A.M. diurnal change has decreased Va 2'

East on a random line bet secs 8 and 17.
Va 12° 22' E

40.00 Set temporary ¼ sec cor.
80.04 Intersect the N and S line 19 links S of corner to secs 8.9.16 and 17.
Thence I run
S 89° 52' W on a true line bet secs 8 and 17
With same Va

Over rolling ground. Descending
3.05 Ravine course S.W.
8.75 Drain course S W.
10.00 Leave hills and enter valley bears N and S.
22.55 A Dry creek course S.
23.00 Leave valley and enter rolling foot hills bears N and S.
30.30 Ravine course S.
40.02 Set a hard sandstone 18×12×4 ins 12 ins in the ground for ¼ sec cor Marked ¼ on N face dug pits 18×18×12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
40.75 Ravine course S.
48.90 Ravine course S.
77.00 Leave gradual sloping hills and enter valley bears S E and N W.
80.04 The cor to secs 7.8.17. and 18.
The slope of the hills is so gradual it is hard to tell where the valley begins
Land rolling E 10 chs 3rd rate farm land
Dry creek valley black soil 1st rate

Subdivisions T34 N R12 W. Cont'd

Chains The balance of the line is over a S.W. slope & East slope very gradual
Soil is sand clay gray color and can nearly all be plowed. 1st rate
No timber along the line

West on a random line bet secs 7 & 18.
Va 17° 22' E.

40.00 Set temporary 1/4 sec cor.
78.85 Intersect the W boundary of the Tp 18 bears N of the cor to secs 7 12 13 & 18 which is a sand stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N R12 W.
Thence Trav
N 89° 52' E on a true line bet secs 7 & 18.
With same Va
1.33 Top gravelly hill.
Descend
3.90 Ravine course S.E.
Ascend
5.50 Top of gravelly ridge bears N.W. & S.E. Descend
9.10 Ravine course S. Ascend.
25.60 Top of gravelly ridge bears S.W. & N.E. Descend
29.55 Ravine course S.E. Descend.
36.30 Ravine course S.E.
38.85 Set a hard sandstone 18x12x3 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
Ascend.
42.20 Top of ridge bears N.W. & S.E. Descend.
47.00 Ravine course S.E. Ascend.
52.25 Top of hill or ridge Descend
66.85 Ravine
69.00 Enter valley bears N & S.
70.25 A Dry creek course S.
Over level valley
78.85 The cor to secs 7.8.17 & 18.

Subdivisions T34 N R12 W Continued

Chains Land rolling and broken being a succession of ridges and ravines. The line runs along the S slope of bluffs.
Soil is sand clay loam on the hillsides and coarse gravel on the ridges 3rd rate
There is a small clump of box elder and elm trees along the Dry creek in N E cor of sec 18.
There is also fine groves of elm and oak and some basswood on the S side of Ponca creek along the bluffs
There are a number of fine springs along the bluffs among the timber
There is a settler in S.E.¼ & one in N W ¼ sec 18.

At 12.00 M I observe latitude on instrument which gives N 42°55'+
At 1.00 P.M. the line bet secs 17 & 18 has a magnetic bearing of S 12°18' E. and the Va is 12° 14' E.
N 0° 4½' W bet secs 7 & 8.
Va 12° 14' E

2.00 Leave valley and ascend along gravelly sloping hill bears N W & S E
30.75 Ravine course W.
39.50 Top of hill
40.00 Set a hard sandstone 18x8x4 ins 12 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
43.00 Ravine course N W
73.70 Ravine course W.
75.50 Ravine course W. Enter valley bears N E & S W.
80.00 Set a hard sandstone 20x17x4 ins 15 ins in the ground for cor to secs 5.6.7 & 8. Marked 5 notches on S. Edge & E face dug pits 18x18x12 in each sec 5½ ft dist and raised a mound of 2 ft high 4½ ft base alongside
Land rolling

T35 R12

Chains	
	Soil sand clay 2nd & 3rd rate
	No timber

East on a random line bet secs 5 & 8.
Va 12° 14' E.

40.00	Set temporary 1/4 sec cor.
80.06	Intersect the N & S line 11 links N of the cor to secs 4.5.8. & 9.
	Thence Drun
	N 89° 55' W on a true line bet secs 5 & 8.
	With same Va
	Over undulating table land
11.00	Leave table land bears N & S. Descend.
31.00	Enter valley bears N & S.
34.00	Dry creek course S.
33.50	Leave valley & ascend hills bears N & S.
40.03	Set a hard sandstone 18x12x3 ins 12 ins in the ground for 1/4 sec sec cor Marked 1/4 on N. face dug pits 18x18x12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base along side
41.00	Ravine course S.E.
48.85	Ravine course N.W.
56.00	Ravine course S.W.
66.80	Ravine course N.W.
73.85	Top of hill
79.00	Enter valley bears N & S.
80.06	The cor to secs 5.6.7 & 8.
	Land rolling & broken
	Soil sand clay 2nd & 3rd rate
	No timber

West on a random line bet secs 6 & 7
Va 12° 16' E.

40.00	Set temporary 1/4 sec cor.
78.70	Intersect the W boundary of the Tp 16 links N of the cor to secs 1.6.7 & 12. which is a hard sandstone firmly set and properly marked & witnessed as heretofore described in notes of

Chains	
	Survey of exterior boundaries of T 34 N R 12 W.
	Thence Drun
	N 89° 53' E on a true line bet secs 6 & 7.
	With same Va
	Over gently rolling prairie
1.10	Ravine course S.E.
38.70	Set a hard sandstone 18x12x3 ins 12 in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base along side
	Ascend gently
40.70	Top of hill Descend
53.60	Ravine course S.E. Ascend.
58.70	Top of hill Descend.
61.65	Ravine course S.W. Ascend.
66.70	Top of hill Descend.
74.70	Enter valley bears N & S.
74.85	A Dry creek course S.E.
78.70	The cor to secs 5.6.7. & 8.
	Land rolling. W 2/3 gently rolling clay soil 1st rate E 1/3 broken by ravines 2nd rate
	Timber- There are a few scattering clumps of white willows along Dry creek.

N 0° 4 1/2 W on a random line bet secs 5 & 6.
Va 12° 16' E.

40.00	Set temporary 1/4 sec cor.
79.92	Intersect the N boundary of the Tp 8 links W of the cor to secs 5.6.31. & 32. Which is a hard sandstone firmly set and properly marked & witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 12 W.
	Thence Drun
	S 0° 1' E on a true line bet secs 5 & 6.
	With same Va
	Over descending ground
11.40	Ravine course S.W.

Subdivisions T 34 N R 12 W Continued

Chains	
38.15	Ravine course S W. Ascend to
39.94	Set a hard sandstone 15x12x3 ins 10 ins in the for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S of Stone 5 1/2 ft east and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
42.00	Descend
57.00	Enter valley bears N W and S. E.
	Over undulating valley
63.00	Drain course S W.
79.92	The cor to secs. 5.6.7. and 8.
	Land rolling and undulating
	Soil N 57 chs sand clay 2nd rate
	S 23 chs black clay loam 1st rate
	Timber – There is some white willow trees and a few small scattering cottonwood along the Dry crust.

Aug 27th 1890.

General Description

This Township is watered by Ponca Creek which flows in a South Easterly direction and at present time is running stream of an average of about 15 links and 6 ins in depth and is claimed by the Indians to be the lowest it has been for many years.
The banks are generally about 8 ft high and from 40 to 60 links from bank to bank. It winds in long sweeping curves from bluff to bluff.
The crest valley is from 1/2 to 3/4 of a mile in width and is generally a dark clay loam and first rate.
The table land on both sides of the crest has a gentle slope towards the crest.
Soil is dark clay loam and is good farm land.

The Dry crest valley has a black soil and grows heavy grass
There is considerable timber along Ponca crest principally White-willow box elder cottonwood, ash and elm with willow, plum and cherry brush.
Along the North slope of the bluffs on the south side of the crest is a heavy fringe of fine oak timber commencing at the top of the abrupt bluff over looking the valley or the last descent, and extends down the step slope into the valley;
The whole belt is limited to a few chains in width.
There are numerous fine springs along the foot of the step bluff skirting the crest valley and in many instances they are found a considerable distance up the bluffs.
There are quite a number of settlers in this Township, mostly along the crest.
They have very fair house and considerable stock and are cutting hay in the ravines

Note. The stone used for corners in this Township are a hard sandstone (Excepting as otherwise particularly described) and I found it impracticable to mark them on the corners and made them distinct and therefore set the stone with flat sides to the East and West and Edges North and South for sec cors and cut the notches or horizontal bars not less than 2 ins long on South edge and East faces and of sufficient depth to make them distinct and easily read.

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
.....
..... Meridian, in ...., showing the respective capacities in which they acted:
.....
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.....
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.....
.....

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
.....
..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
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.....
.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

6—151

Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the, ~~U. S.~~ Surveyor General for General Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Township 34 North Range 12 West of the 6th Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 8th day of April, 1891.

C. E. Forbes
Clerk Dist. Court

Approval.

Office of the ~~U. S. Surveyor General,~~ Commissioner, Genl Land Office
Washington D.C. June 30, 1891.

The foregoing field notes of the survey of Subdivisional lines in fractional T. 34 N. R. 12 W. of the 6th Principal Meridian in the State of Nebraska executed by U. S. Surveyors Nicholas J. Paul and Robert Harvey under ~~his~~ their Contract No. —, dated May 26th, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

F. H. Carter
Commissioner Genl Land Office
Ex-Officio Surveyor General.
~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.~~

6—151

U. S. Surveyor General.

Received with letter of R. B. Hughes, Surveyor General, So Dak dated Feb. 8/97

(4—679.)

Book P.

FIELD NOTES

OF THE SURVEY OF

the Subdivision lines of fractional Township No 35 North of Range No. 12 West

Of the Sixth Principal Meridian,

Nebraska

AS SURVEYED BY

Charles H. Bates, U. S. Deputy Surveyor,

Under his Contract No. 106, dated March 28th 1895

Survey commenced August 23rd, 1895.

Survey completed August 27th, 1895.

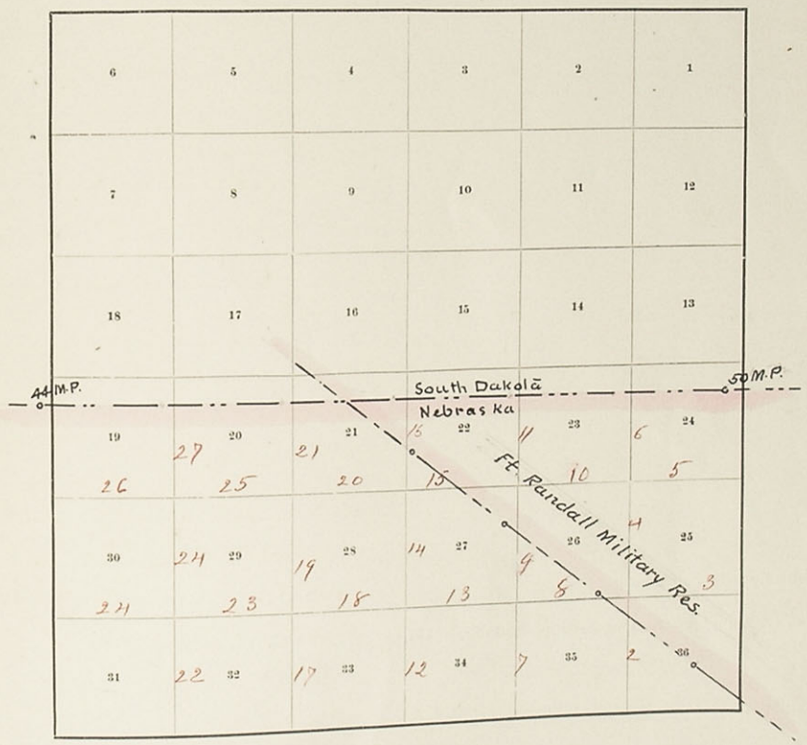
7.35 R 12

Names and Duties of Assistants.

Tim Burns	Chainman
E.W. Huisdall	Chainman
H.M. Fox	Moundman
E.R. Cook	Moundman
C.H. Armstrong	Moundman
H.M. Fenotti	Moundman
C. Wright	Flagman & Moundman

INDEX DIAGRAM.

Township 35 N. , *Range* 12 W.



Meanders Page

T.35 R.12

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For preliminary oaths of assistants, see those with field notes of Tp. 34 N. Rg 10 West of the 6th P.M. surveyed under this same contract and contained in Book lettered "L."

.....

..... , Chainman.

..... , Chainman.

..... , Chainman.

..... , Chainman

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

..... , Axeman.

..... , Axeman.

.....

.....

6—151

Subdivision of T. 35 N., R. 12 W. 1

Chains.

Survey commenced Aug. 23d. 1895. and executed with a Burts improved solar compass No. 4834, made by Young and Sons. Philadelphia Pa.

The horizontal limb is provided with two opposite verniers reading to single minutes which is also the least count of the latitude and declination verniers.

The instrument was examined, tested on the meridian at Huron S. Dakota, found correct, and was approved by the Surveyor general of North Dakota May 11th. 1895.

In order to test the solar apparatus by comparing the results of p.m. and a.m. observations on the sun, with a true meridian, I proceed as follows.

Aug. 22d. I set off 42°59' on the lat. arc. and 11°40' N. on the decl. arc, and at 5h 10m p.m. l.m.t. that the adjustment of the solar on the true meridian established Aug. 20th., I find it gives the same meridian and adjustments correct.

Aug. 23d. I set off 42°59' on the lat. arc. and 11°28' N. on the decl. arc, and at 6h 50m a.m. l.m.t. again test the solar on the same meridian, and find it gives the same meridian and adjustments correct. Meridian of record is five rods west of Tp. 35 N. R. 11 W.

Aug. 25d. At 4h 15m p.m. l.m.t. I set off 42°59'.5 on the lat. arc. and 11°14' N. on the decl. arc, and determine a true meridian with the solar, at the cor. of Tps. 34 and 35 N. Rs. 11 and 12 W., heretofore described.

The magnetic bearing of the true meridian at 4h 15m p.m. is N. 1°20' W, the angle thus determined reduced by the table, page 100, gives the mean mag. decl. 12°10' E.

Chains

From the Tp. cor., I run S.89°59' W. on the S. bdy. of sec. 36, and at 40.03, fall 1½ lks. S. of the ¼ sec. cor., and at 80.05 chs. fall 2¼ lks S of the cor. of secs. 1, 2, 35 and 36. Consequently the S. bdy. of sec 36. bears W.

Having recently established the E. bdy. of sec. 36, I do not retrace the same.

I commence at the cor. of secs. 1, 2, 35 and 36. on the S. bdy. of the Tp. which is a stone 10×6×3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Thence I run

N.0°01' W. bet. secs. 35 and 36.

Over rolling prairie.

0.25 Wagon road, bears E. and W.

0.40 S.W. cor. field, bears E. 50 lks. dist.

5.00 Drain 20 lks. wide, course S.E.

House of J. Johnson, bears W. 10.00 chs. dist.

16.50 N.W. cor. field, bears E. 50 lks. dist.

17.20 House of J Clinger bears E. 3.00 chs. dist.

32.00 Top of sand ridge, bears E. and W.

40.00 Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked ¼ S. on W. face.

41.86 Wagon road, bears E. and W.

59.00 House, bears W. 1.50 chs. dist.

65.57 Intersect S.W. bdy. of the Ft. Randall Military reservation at a point from which the 15½ mile cor. bears S. 51°38' E., 1.94 chs. dist., heretofore described

Deposit a marked stone 12 ins. in the ground for closing cor. of fract. secs. 35 and 36; dig pits 30×30×12 ins. on crossnize each line, N. 51°38' W., and S. of cor. 4 ft. dist. and raise

what kind [illegible]

Chains

a mound of earth 4 ft. base, 2 ft. high, over deposit.

In S. pit drive a stake 2 ft. long, 2 ins sq. 12 ins in the ground, marked.

C.C. T.35 N. R.12 W. on S.

Ft. R.M.R. on N.

S.35 on W. and

S.36 on E. faces, with 1 groove on E. face.

70.68 Enter S.E. cor field thence along E. edge

79.65 Leave field at N.E. cor.

80.00 Set a sandstone 22×18×3 ins. 16 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked with 1 notch on S. and E. edges; dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

Land, high rolling.

Soil, sandy 2d. and 3d. rate.

East on a random line bet. secs. 25 and 36.

40.00 Set temp ¼ sec. cor.

80.20 Intersect E. bdy. line of the Tp., 14 lks. N. of cor. of secs. 25, 30, 31 and 36., heretofore described.

Thence I run

N.89°54' W. on a true line bet. secs. 25 and 36.

Over hilly land.

26.40 Drain, 125 lks. wide, course N.E.

40.10 Drain, 60 lks. wide, course N.E. in ravine 50 ft. deep.

Deposit a marked stone 12 ins. in the ground for ¼ sec. cor.; dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.

In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked ¼ S. on N. face.

4 Subdivision of Tp. 35 N., R. 12 W.

Chains

53.38 Wagon road, bears N.W. and S.E. Top of hills.
House of J. Baker, bears N. 8.00 chs. dist.
69.20 S.E. cor. field, bears N. 10 lks. dist.
78.20 S.W. cor. field. bears N. 20 lks. dist.
80.20 The cor. of secs. 25, 26, 35 and 36.
Land hilly, and high rolling.
Soil, sandy 2d. and 3d. rate.

Aug. 23d. 1895.

Aug. 24th. At 7h 15m a.m. l.m.t. I set off 42°58'.5 on the lat. arc. and 11°07' N. on the decl. arc, and determined a true meridian with the solar at the cor. of secs. 25, 26, 35 and 36.
Thence I run
N. 0°01' W. bet. secs. 25 and 26.
Over rolling land.
0.17 S.E. cor. of field, thence along E. edge of same.
17.65 House of C. Becker, bears W. 5.00 chs. dist.
40.00 N.E. cor. of field. bears W., 50 lks. dist.
Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
42.65 House of Geo. Pokorny, bears W. 8 chs. dist.
67.20 N.W. cor. of field, bears E. 100 lks. dist.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 23, 24, 25 and 26; dig pits 20x20x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked T. 35 N., R. 12 W., S. 24 on N.E.

Subdivision of T. 35 N. R. 12 W. 5

Chains.

R. 12 W., S. 25 on S.E.
S. 26 on S.W. and
S. 23 on N.W. faces, with 2 notches on S. and 1 notch on E. edges.
Land rolling.
Soil, sandy loam 2d. rate.

S. 89°54' E. on a random line bet. secs. 24 & 25.
40.00 Set temp. 1/4 Sec. cor.
80.04 Intersect E. bdy. of the Tp. 18 lks. N. of cor. of secs. 19, 24, 25 and 30. Witness described.
Thence I run
N. 89°46' W. on a true line bet. secs. 24 and 25.
Over rolling land.
5.44 Wagon road, bears N.E. and S.W.
8.00 House of Ed. Timmons bears N. 8 chs. dist.
8.80 Enter field, bears N. and S.
14.48 Leave field, bears N. and S.
23.50 Wagon road, bears N.E. and S.W.
29.44 Enter field, bears N. and S.
38.60 Leave field, bears N. and S.
40.02 Deposit a marked stone 12 ins. in the ground, for 1/4 Sec. cor.; dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
42.72 Enter field at S.E. cor. thence along S. edge.
54.50 House, bears N. 10.00 chs. dist.
55.50 S.W. cor. of field. leave same.
59.60 Wagon road, bears N. and S.
76.90 Drain, 45 lks. wide, course N.
80.04 The cor. of secs. 23, 24, 25 and 26.
Land rolling.
Soil, sandy loam, 2d. rate.

Chains.

N. 0° 01' W. bet. secs. 23 and 24.
On high rolling land.
6.75 Drain. 40 lks. wide. course N.W.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
53.15 Drain, 40 lks. wide, course N.W.
58.57 Intersect bdy. line bet. S. Dak. and Neb. at a point from which the 49th. mile stone, which is a quartzite shaft, 40x10x10 ins above ground, firmly set, and marked as described by the surveyor general, bears N. 0.69 chs. dist.
Deposit a marked stone 12 ins. in the ground for closing cor. of fract. secs. 23 and 24; dig pits 24x24x12 ins. in crossing on each line S. E. and W. of cor. 4 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
C.C. T. 35 N. R. 12 W. on S.
S. 23 on W. and
S. 24 on E faces, with 1 groove on E. and 5 grooves on W. faces.
Land, rolling.
Soil, sandy loam 2d. rate.

From the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp. which is a stone 6x4x3 ins. above ground, marked and witnessed as described by the Surveyor General I run
N. 0° 02' W. bet. secs. 34 and 35,

Chains

On rolling land, ascending.
0.45 Drain. 50 lks. wide. course W.
7.00 S.W. cor. of fract. bears E. 50 lks. dist.
S.E. cor. of fract. bears W. 50 lks. dist.
(on plat) 37.00 House of Novotny bears W. 12.00 chs. dist.
38.00 N.W. cor. of fract. bears E. 60 lks. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24x24x12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
52.10 N.E. cor. of fract. on line.
64.23 Top of sand ridge, bears N.W. and S.E.
Wagon road along top of same
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 26, 27, 34 and 35; dig pits 20x20x12 ins. in each sec. 4 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
T. 35 N. S. 26 on N.E.
R. 12 W. S. 35 on S.E.
S. 34 on S.W. and
S. 27 on N.W. faces, with 1 notch on S. and 2 notches on E. edges.
Land, high rolling.
Soil, sandy 2d. and 3d. rate.
Aug. 24th. At this cor. I set off 11° 01.5' N. on the decl. arc. and at 0h 2m p.m. l.m.t. observe the sun on the meridian, the resulting lat. is 42° 58.5 which is the correct latitude.

Chains

East on a random line bet. Secs. 26 and 35.

40.00 Set Temp. 1/4 Sec. cor.

79.80 Intersect N. and S. line 5 lks. S. of cor. of Secs. 25. 26. 35 and 36.

Thence I run

S. 89° 58' W. on a true line bet. Secs. 26 and 35.

Over rolling land.

4.75 S.W. cor. of field, on line,

4.80 Wagon road. bears N. and S.

9.35 Drain, 40 lks. wide, course N.W.

16.40 Drain, 50 lks. wide. course N.W.

18.16 Intersect S.W. bdy. of Ft Randall military reservation at a point from which the 16th mile. heretofore described, bears N. 51° 38' W. 14.94 chs. dist.

Deposit a marked stone 12 ins. in the ground for closing cor. of proc. Secs. 26 and 35; dig pits 30 x 30 x 12 ins. crosswise on each line S. 51° 38' E. and W. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high over deposit.

In W. pit drive a stake 2 ft. long. 2 ins. sq. 12 ins. in the ground. marked.

C.C. T. 35 N. R. 12 W. on W.

Ft. R. M. R. on E.

S. 26 on N. and

S. 35 on S. faces. with 1 groove on S. face.

20.00 N.W. cor. of field. bears S. 50 lks. dist.

27.34 Wagon road. bears N.W. and S.E.

38.74 Drain, 100 lks. wide. course N.

39.90 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24 x 24 x 12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high over deposit.

In E. pit drive a stake 2 ft. long 2 ins sq. 12 ins. in the ground, marked 1/4 S. on N face.

40.20 N.E. cor. wire fence, bears S. 1.00 ch. dist.

59.30 N.W. cor. wire fence. bears S. 2.00 chs. dist.

79.80 The cor. of Secs. 26. 27. 34 and 35.

Chains

Land, rolling.

Soil, sandy 2d. and 3d. rate.

The House of F. Satopek is located on the N.E. 1/4. of N.W. 1/4, Sec. 35.

N. 0° 02' W. bet. Secs. 26 and 27.

Over rolling land, Wagon road along line.

0.50 S.E. cor. of wire fence, bears W. 50 lks. dist.

12.00 House of A. Karth, bears W. 12.00 chs. dist.

18.30 Drain. 25 lks. wide, course N.E.

20.50 Enter field at S.W. cor. thence along W. edge.

21.00 N.E. cor. of fence. and S.E. cor. of field. bears W. 60 lks. dist.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high over deposit.

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face.

40.28 Bear field at N.W. cor. N.E. corner, 60 lks. W.

43.00 House of Geo. Hull bears E. 2.00 chs. dist.

48.69 Intersect S.W. bdy. of Ft. Randall military reservation at a point from which the 17th mile cor. heretofore described, bears N. 51° 38' W. 15.57 chs. dist.

Deposit a marked stone 12 ins. in the ground for closing cor. of proc. Secs. 26 and 27; dig pits 30 x 30 x 12 ins. crosswise on each line N. 51° 38' W. and S. of cor. 4 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high over deposit

In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked

C.C. T. 35 N. R. 12 W. on S.

Ft. R. M. R. on N.

S. 26 on E. and

S. 27 on W. faces. with 2 grooves on E. face.

55.00 S.E. cor of field. bears W. 1.70 chs. dist.

75.00 Wagon road. bears N.E. and S.W.

78.45 N.E. cor. of field. bears W. 30 lks. dist.

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Chains.

80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 22. 23. 26 and 27. dig pits 20 x 20 x 12 ins. in each sec. 4 ft dist. and raise a mound of earth 4 ft. base. 2 ft high over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
T 35 N. S. 23 on N.E.
R. 12 W. S. 26 on S.E.
S. 27 on S.W. and
S. 22 on N.W. faces, with 2 notches on S. and E. edges.
Land. rolling.
Soil. sandy loam 2d. rate.

N. 89°58' E. on a random line bet. secs. 23 and 26.
40.00 Set temp. 1/4 sec. cor.
80.06 Intersect N. and S. line 30 lks. S. of cor. of secs. 23. 24. 25 and 26.
Thence I run
S. 89°45' W. on a true line bet. secs. 23 and 26.
Over rolling land.
24.70 Drain, 40 lks. wide, course N.W. in ravine 60 ft. deep.
34.06 Drain, 50 lks. wide. course N.
40.03 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24 x 24 x 12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
44.06 Drain, 30 lks. wide. course N.E., in ravine 50 ft. deep.
53.51 Enter field, near N.E. cor.
60.35 House, bears N. 20.00 chs. dist.
79.31 Leave field, near N.W. cor.
79.56 Wagon road, bears N. and S.
80.06 The cor. of secs. 22. 23. 26 and 27.
Land, rolling and hilly.

Subdivision of T. 35 N. R. 12 W. 11

Chains

Soil. sandy. 2d. and 3d. rate.

N. 0°02' W. bet. secs. 22 and 23.
Over rolling land, Wagon road along line.
1.60 Wagon road. bears E. and W.
1.79 S.E. cor. wire fence, thence along same.
14.00 S.W. cor. of field, bears E. 2.50 chs. dist.
23.00 N.E. cor. of wire fence.
33.60 N.W. cor. of field, bears E. 2.50 chs. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base. 1 1/2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
55.00 House. bears E. 10.00 chs. dist.
58.35 Intersect bdy. line bet. S. Dak. and Neb. at a point from which the 48th mile stone, which is a quartzite shaft. 40 x 10 x 10 ins. above ground, firmly set. and marked as described by the surveyor general bears W. 5.30 chs. dist.
Deposit a marked stone 12 ins. in the ground for closing cor. of fracl. secs. 22 and 23; dig pits 24 x 24 x 12 ins. cusewise on each line S. E. and W. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base. 2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
C.C. T. 35 N. R. 12 W. on S.
S. 22 on W. and
S. 23 on E. faces, with 2 grooves on E. and 4 grooves on W. faces.
Land. rolling
Soil. sandy loam. 2d. rate.
Aug. 24th. 1895.

Chains

Aug. 24th, at 9h 12m p.m. l.m.t. I observe Polaris at eastern elongation, in accordance with Manual of instructions, and mark a point in the line thus determined on a plug driven in the ground 5.00 chs. N. of my station, at my Camp, near the 1/4 Sec. Cor. bet. Secs. 34 and 35.

Aug. 25th, at 7h 30m a.m., I lay off azimuth of Polaris 1°43' to the west, and mark the true meridian thus determined on a stake firmly driven in the ground. On this meridian I test my solar.

Aug. 26th, at 6h 30m a.m. l.m.t. I set off 42° 57'.5 on the lat. arc, and 10° 27' N. on the decl. arc, and determine a true meridian with the solar, at the cor. of Secs. 3. 4 33 and 34, on S. bdy of the Tp. which is a stone 8x6x4 ins. above ground, firmly set, and marked and witnessed as described by the Surveyor general.

Thence I run

N. 0° 02' W. bet. Secs. 33 and 34.

Over rolling land.

Wire fence paralleling along W. of line.

28.75 Drain, 20 lks. wide, course S.E.

31.05 Wire fence, bears E. and W.; and N. on E. side of line.

33.60 House of Wm Battgha, bears W. 4.00 chs. dist.

40.00 Set a sandstone 8x12x4 ins. 10 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face, dig pits 24x24x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.

42.00 Drain, 45 lks. wide, course S.E.

56.15 S.W. cor. of field, bears E. 20 lks. dist.

80.00 Set a sandstone 17x10x4 ins. 12 ins. in the ground for cor. of Secs. 27. 28. 33. and 34. marked with 1 notch on S. and 3 notches on E. edges; dig pits 20x20x12 ins. in each Sec. 5½ ft. dist. and raise a mound of

Chains

earth 4 ft. base, 2 ft. high W. of cor.

Land, rolling

Soil, sandy loam 2d rate.

East on a random line bet. Secs. 27 and 34.

40.00 Set Temp. 1/4 Sec. cor.

80.18 Intersect N. and S. line 22 lks. S. of cor. of Secs. 26. 27. 34 and 35.

Thence I run

S. 89° 51' W. on a true line bet. Secs. 27 and 34.

Over rolling land, ascending.

0.13 Wagon road, bears N. and S.

8.84 Log school house on line.

24.02 S.W. cor. wire fence, and S.E. cor. field, bears N. 15 lks. dist.

27.50 Top of sand ridge, bears N.W. and S.E.

Wagon road along ridge bears N.W. and S.E.

S.W. cor. of field, bears N., 15 lks. dist.

40.03 N.E. cor. of wire fence, 10 lks. N. of line.

fence extends W. and S.

40.09 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit. In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.

42.06 N.E. cor. of field, thence along N. edge of road.

57.90 House of J. Schmidt, bears S. 6.00 chs. dist.

A vacant house, bears N. 2.50 chs. dist.

69.98 Leave field at N.W. cor.

70.83 Drain, 40 lks. wide, course S.

77.18 Enter field, bears N. and S.

79.98 Leave field, bears N. and S. and wire fence, bears N. and S.

80.18 The cor. of Secs. 27. 28. 33 and 34.

Land, rolling.

Soil, sandy loam, 2d. rate.

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Chains

N. 0°02' W. bet. secs. 27 and 28.
Over rolling land.
4.20 N.W. cor. of fence and field. bears E., 20 lks. dist. and S.W. of field extending N. and E.
19.54 S.E. cor. of field. bears W. 55 lks. dist.
21.72 N.W. cor. of field. bears E. 20 lks. dist.
26.44 N.E. cor. of field. bears W., 110 lks. dist.
34.45 S.W. cor. of field. bears E. 15 lks. dist.
39.00 N.W. cor. of field. bears E. 15 lks. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on W. face.
44.64 Wagon road. bears N.W. and S.E.
45.41 Wire fence bears E. and W. near S.W. cor.
46.15 S.W. cor. field. bears E. 2.00 chs. dist.
73.68 Enter field. bears E. and W.
79.45 Leave field. and wire fence. bears E. and W.
79.65 Wagon road. bears E. and W.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 21, 22, 27 and 28; dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high over deposit.
In S.E. pit drive a stake 2 ft., long 2 ins. sq. 12 ins. in the ground, marked
T. 35 N. S. 22 on N.E.
R. 35 W. S. 27 on S.E.
S. 28 on S.W. and
S. 21 on N.W. faces. with 2 notches on S. and 3 notches on E. edges.
Land rolling
Soil, sandy, 2d. rate.

Subdivision of T. 35 N. R. 12 W. 15

Chains

N. 89°51' E. on a random line bet. secs. 22 and 27.
40.00 Set temp 1/4 sec. cor.
80.10 Intersect N. and S line 12 lks. n. of cor. of secs. 22. 23. 26 and 27.
Thence I run
S. 89°56' W. on a true line bet secs. 22 and 27.
Over rolling prairie. Wagon road N. of line
0.30 N.E. cor. of field. bears S. 1.50 chs. dist.
11.80 N.W. cor. of field, bears S. 1.50 chs. dist.
28.30 S.W. cor. of wire fence. bears N., 80 lks. dist.
30.00 House of K. Enelhupt. bears N. 7.00 chs. dist.
36.00 Drain, 30 lks. wide. course N.
39.10 Wire fence. bears N and S. near N.E. cor.
39.40 Intersect S.W. bdy. of Ft. Randall military reservation at a point from which the 17½ mile, cor. heretofore described. bears N. 51°38' W. 6.05 chs. dist.
Deposit a marked stone 12 ins. in the ground for closing cor. of fract. secs. 22 and 27; dig pits 30×30×12 ins. crossmise on each line S. 51°38' E. and W. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high over deposit.
In W. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
C.C. T. 35 N. R. 12 W. on W.
Ft. R.M.R. on E.
S. 22 on N. and
S. 27 on S. faces. with 2 grooves on S. face.
40.05 Deposit a marked stone 12 ins in the ground for 1/4 sec. cor.; dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base. 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground. marked 1/4 S. on N. face.
48.00 S.E. cor. of field. bears N. 2.00 chs. dist.
55.27 Wire fence. bears N. and S. Enter field.
65.00 House of Wm Cross. bears S. 4.00 chs. dist.
69.00 S.W. cor. of field. bears N. 2.00 chs. dist.

Chains

69.00 Lean fence bears N. 70° E., and S. 70° W.
70.00 Wire fence bears N. 70° E., and S. 70° W.
79.00 Wagon road. bears N. 70° E., and S. 70° W.
80.10 The cor. of secs. 21, 22, 27 and 28.
Land, rolling.
Soil, sandy loam 2d. rate.

N. 0°02' W. bet. secs. 21 and 22,
Over rolling land.
32.37 Intersect S.W. bdy of Ft. Randall Military reservation at a point from which the 18th. mile cor., hereto for described. bears S. 51°38' E. 5.95 chs. dist.
Deposit a marked stone 12 ins. in the ground for closing cor. of pract. secs. 21 and 22, dig pits 30 x 30 x 12 ins. crossing on each line N. 51°38' W. and S. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins sq. 12 ins. in the ground, marked.
C.C. T. 35 N. R. 12 W. on S.
Ft. R. M. R. on N.
S. 21 on E. and
S. 22 on W. faces. with 3 grooves on E face.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor. dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face
House of F. Tibbits bears S. 72° W. 14.00 chs. dist.
58.38 Intersect bdy. line bet. S. Dak. and Neb. at a point from which the 47th mile stone which is a quartzite shaft 40 x 10 x 10 ins above ground, finely set, and introduced and marked

Chains

as described by the surveyor general; bears W. 4.89 chs. dist.
Deposit a marked stone 12 ins. in the ground for closing cor. of pract. secs. 21 and 22; dig pits 24 x 24 x 12 ins. crossing on each line S. E. and W. of cor. 4 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked.
C.C. T. 35 N. R. 12 W. on S.
S. 21 on W. and
S. 22 on E. faces. with 3 grooves on E. and W. faces.
Land, rolling.
Soil, sandy loam 2d. rate.
S. Yocam is located on the S.W. 1/4 of the N.E. 1/4 of sec. 21.

Aug. 26th. I set off 10° 20' N. on the decl. arc. and at 0h 2m p.m. l.m.t. observe the sun on the meridian, the resulting lat. is 42° 57' .5, at the cor. of secs. 4, 5, 32 and 33 on the S. bdy. of the Tp. which is a stone 6 x 4 x 4 ins. above ground, finely set and marked and witnessed as described by the surveyor general
Thence I run
N. 0°03' W. bet. secs. 32 and 33.
Over rolling land.
9.00 House of T. H. Atwood bears W. 2.00 chs. dist.
10.00 House of J. Atkins bears E. 1.00 ch. dist.
11.06 Drain, 40 lks. wide. course W.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3 1/2 ft. base. 1 1/2 ft. high

Chains

over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground marked 1/4 S. on W. face.
40.81 S.E. cor. wire fence. bears W. 1.00 ch. dist.
66.75 N.W. cor. of wire fence, bears E. 15 lks. dist.
68.46 Enter drain. 25 lks. wide. course to the S.E.
72.96 Leave drain. course from the N.W.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 28, 29, 32, and 33; dig pits 20 x 20 x 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high, over deposit.
In S.E. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked
T.35 N. S. 28 on N.E.
R.12 W. S. 33 on S.E.
S.32 on S.W. and
S.29 on N.W. faces, with 1 notch on S. and 4 notches on E. edges.
Land, rolling.
Soil, sandy loam, 2d. and 3d. rate.

East on a random line bet. secs. 28 and 33.
40.00 Set temp. 1/4 sec. cor.
80.06 Intersect N. and S. line 10 lks. S. of the cor. of secs. 27, 28, 33 and 34.
Thence run
S. 89° 56' W. on a true line bet. secs. 28 and 33.
Over rolling land.
11.00 House of J. Holligan bears S. 10 lks. dist.
16.00 Drain, 40 lks. wide, course S.E.
30.58 Wagon road, bears N. and S.
Enter N.E. cor. of field, thence along N. edge.
37.68 Leave field at N.W. cor.
House of D. Pace, bears N. 18.00 chs. dist.
40.03 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24 x 24 x 12 ins. E. and

Chains

N. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
40.65 N.E. cor. of field, bears S. 1.60 chs. dist.
49.60 Drain, 50 lks. wide course S.W.
52.50 Drain, 50 lks. wide, course S.
62.66 Wagon road, bears N.W. and S.E.
73.00 N.W. cor. of field, bears S. 60 lks. dist.
73.15 Drain, 55 lks. wide, course S.W.
80.06 The cor. of secs. 28, 29, 32 and 33.
Land, rolling and hilly.
Soil, sandy loam, 2d. rate.

N. 0° 05' W. bet. secs. 28 and 29.
Over rolling land.
0.60 N.E. and S.E. cors. of wire fence bears W. 1 ch. dist.
30.21 House of W. Scott, bears W.
27.24 Wagon road, bears N.W. and S.E.
38.36 N.E. cor. of wire fence, bears W. 1.00 ch. dist.
40.00 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor.; dig pits 24 x 24 x 12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit.
In S. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.
House of W. Scott, bears S. 42° W.
40.50 Wagon road, bears N.E. and S.W.
67.98 House of J. Phillips bears E.
79.81 Wagon road, bears N.E. and S.W.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 20, 21, 28 and 29; dig pits 20 x 20 x 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq.

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Subdivision of T. 35 N., R. 12 W.

Chains.

12 ins. in the ground, marked
T. 35 N. S. 21 on N.E.
R. 12 W. S. 28 on S.E.
S. 29 on S.W. and
S. 20 on N.W. faces, with 2 notches on the S. and
4 notches on the E. edges.
Land rolling
Soil, sandy loam 2d. rate.
S.E. cor. of wire fence bears N. 45° W. 60 lks. dist.

N. 89° 56' E. on a random line bet. secs. 21 and 28.
40.00 Set Temp. 1/4 Sec. cor.
80.00 Intersect N. and S. line 14 chs. N. of cor. of
secs. 21, 22, 27 and 28.
Thence Drain
N. 89° 58' W. on a true line bet. secs. 21 and 28.
Over gentle rolling land.
1.00 N.W. cor. of wire fence, bears S. 20 lks. dist.
5.30 N.W. cor. of field, bears S. 50 lks. dist.
13.00 Wagon road, bears N.W. and S.E.
N.E. cor. of field, bears S. 1.50 chs. dist.
S.E. cor. of field, bears N. 2.00 chs. dist.
17.00 House, bears N., 12 chs. dist.
26.50 S.W. cor. of field, bears N. 1.50 chs. dist.
33.48 Wagon road, bears N.W. and S.E.
34.00 House of E. G. Bower, bears S.
39.35 N.W. cor. of field, bears S. 1.25 chs. dist.
40.00 Deposit a marked stone 12 ins. in the
ground for 1/4 Sec. cor.; dig pits 24 x 24 x 12
ins. E. and W. of cor. 4 ft. dist. and raise a
mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12
ins. in the ground, marked 1/4 S. on N. face.
House of E. G. Bower bears S. 30° E.
House and small store building of
W. Fowler bears N. 64 W.
42.00 Drain, 35 lks. wide, course S.W.

Subdivision of T. 35 N. R. 12 W.

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Chains

53.09 Wagon road, bears N.W. and S.E.
61.50 House and store of W. Fowler, bears N.
67.00 House of J. Phillips bears S.
79.60 Wagon road, bears N.E. and S.W.
80.00 The cor. of secs. 20, 21, 28 and 29.
Land, gently rolling.
Soil, sandy loam 2d. rate.
Aug. 26th, 1895.

N. 0° 03' W. bet. secs. 20 and 21.
Over gentle rolling land.
9.35 N.E. cor. wire fence, and S.E. cor. of field, bears
W. 30 lks. dist.
29.45 N.E. cor. of field, bears W. 1.00 ch. dist.
40.00 Deposit a marked stone 12 ins. in the
ground for 1/4 Sec. cor.; dig pits 24 x 24 x 12 ins.
N. and S. of cor. 4 ft. dist. and raise a
mound of earth 3 1/2 ft. base 1 1/2 ft. high
over deposit.
In S. pit drive a stake 2 ft. long 2 ins.
sq. 12 ins. in the ground, marked 1/4 S. on W. face.
58.36 Intersect bdy. line bet. S. Dak. and Neb.
at a point from which the 46th. mile
stone, which is a quartzite shaft 40 x 10 x 10
ins. above ground, finely set, and
marked and mitered as described by the Surveyor
general, bears W. 4.82 chs. dist.
Deposit a marked stone 12 ins. in
the ground for closing cor. of sec. secs.
20 and 21; dig pits 24 x 24 x 12 ins. on
each line S. E. and W. of cor. 4 ft. dist.
and raise a mound 4 ft. base 2 ft.
high over deposit.
In S. pit drive a stake 2 ft. long 2 ins.
sq. 12 ins. in the ground, marked
C.C. T. 35 N. R. 12 W. on S.
S. 20 on W. and

Chains

5.21 on E. faces, with 4 grooves on E. and 2 grooves on W. faces.
Land, gently rolling.
Soil, sandy loam 2d. rate.

Aug. 27th. At 7h a.m. l.m.t. I set off 42°.05'.5 on the lat. arc, and 10°.05' N. on the decl. arc, and determine a true meridian with the solar, at the cor. of Secs. 5.6.31 and 32. on S. bdy. of the Tp. which is a stone 12x5x4 ins. above ground, firmly set, and marked and witnessed as described by the Surveyor general.
Thence I run
N. 0°04' W. bet. Secs. 31 and 32.
Over rolling land.

19.55 S.E. cor wire fence. bears W. 25 lks. dist.
30.75 Drain, 40 lks. wide, course S.W.
38.35 N.E. cor. wire fence, bears W., 40 lks. dist.
40.00 Set a sandstone 17x10x5 ins. 12 ins. in the ground for 1/4 Sec. cor. marked 1/4 on W. face; dig pits 24x24x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high, W. of cor.
House of C. Baldwin bears N. 85° W. 1.50 chs. dist.
40.55 N.W. cor. wire fence. bears E. 20 lks. dist.
41.65 S.E. cor. of field. bears W. 20 lks. dist.
60.50 N.E. cor. of field bears W. 1.00 ch. dist., and S.W. cor. of field, bears E., 1.00 ch. dist.
70.55 S.E. cor. of field on line thence along E. edge of same.
80.00 Wagon road. bears N.E. and S.W.
Set a sandstone 20x12x4 ins. 15 ins. in the ground for cor. of Secs. 29, 30, 31 and 32, marked with 1 notch on S. and 5 notches on E. edges;

Chains.

dig pits 20x20x12 ins. in each. See 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, rolling.
Soil, sandy loam 2d. rate.

East on a random line bet. Secs. 29 and 32.
40.00 Set temp. 1/4 Sec. cor.
79.94 Intersect N. and S. line 10 lks. S. of cor. of Secs. 28, 29, 32 and 33.
Thence I run
S. 89°56' W. on a true line bet. Secs. 29 and 32.
Over rolling land.
Wire fence paralleling N. of line.
1.04 Wire fence. bears N. and S.
3.79 Drain 50 lks. wide, course S.E.
15.70 Sod school house on line.
15.94 Enter field. near N.E. cor.
23.94 Leave field. near N.W. cor.
26.70 House of L. L. Walker 20 lks. S. of line.
27.90 Enter field. near N.E. cor.
38.64 Leave field. near N.W. cor.
39.97 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24x24x12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
49.34 House of J. H. Jones. bears S. 6.00 chs. dist.
50.24 Wagon road. bears S.E. and N.W. and N.E. cor. of field. thence along N. edge of same.
58.95 Leave field at N.W. cor.
79.10 N.W. cor. of field. bears S. 15 lks. dist.
79.94 The cor. of Secs. 29, 30, 31 and 32.

Chains

Land, rolling.
Soil, sandy loam 2d. rate.

West on a random line bet. secs. 30 and 31.
40.00 Set temp. 1/4 sec. cor.
78.63 Intersect W. bdy. of the Tp. 30 lks. N. of cor. of secs. 25, 30, 31 and 36, heretofore described.
Thence I run
N. 89°47' E. on a true line bet. secs. 30 and 31.
Over hilly and rolling prairie.
15.48 Drain, 10 lks. wide, course S.E.
29.53 Wagon road, bears N.W. and S.E.
36.83 Drain, 30 lks. wide, course S.
38.63 Deposit a marked stone 12 ins. in the ground for 1/4 sec. cor., dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft high over deposit.
In E. pit drive a stake 2 ft. long, 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.
46.63 Drain, 25 lks. wide. course N.W.
60.60 House of H. Jones. bears N. 2.00 chs. dist.
67.63 Enter field. bears N. and S.
78.63 The cor. of secs. 29, 30, 31 and 32.
Land, rolling and hilly.
Soil, sandy 2d. and 3d. rate.

N. 0°04' W. bet. secs. 29 and 30.
Over rolling prairie, along E. side of field.
4.15 S.W. cor. of fence. bears E. 1.15 chs dist.
6.68 N.E. cor. of field. bear same
32.15 Drain, 35 lks. wide. course N.W.
39.72 Drain, 30 lks. wide. course W.
40.00 Set a sandstone 18×11×5 ins. 12 ins. in the ground

Chains

for 1/4 sec. cor. marked 1/4 on W. face; dig pits 24×24×12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
42.30 N.W. cor. of wire fence, bears E. 1.15 chs. dist.
59.88 S.E. cor. of wire fence, 5 lks. E.
79.54 N.E. cor. of wire fence. 1.15 chs E. wire fence, bears E. and W.
80.00 Deposit a marked stone 12 ins. in the ground for cor. of secs. 19, 20, 29 and 30; dig pits 20×20×12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high, over deposit.
In S.E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked
T.35 N. S. 20 on N.E.
R. 12 W. S. 29 on S.E.
S. 30 on S.W. and
S. 19 on N.W. faces. with 2 notches on S. and 5 notches on E. edges.
Land, rolling.
Soil, sandy loam, 2d. rate.
House of W.S. Delany bears N. 35° 45' W.

N. 89°56' E. on a random line bet. secs. 20 and 21.
40.00 Set temp. 1/4 sec. cor.
79.98 Intersect N. and S. line 9 lks. S. of cor. of secs. 20, 21, 28 and 29.
Thence I run
S. 89°52' W. on a true line bet. secs. 20 and 29
Over gentle rolling prairie
0.45 S.E. cor. wire fence, bears N.
35.98 House of T. Stevens, bears N. 5.00 chs. dist.
38.38 S.W. cor. wire fence on line.
38.63 Wagon road, bears N.W. and S.E.
39.99 Deposit a marked stone 12 ins. in the

Chains

ground for 1/4 Sec. cor.; dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, over deposit. In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.

68.00 House of Tilda Delany bears N. 5.00 chs. dist.
House of P. Delany bears S. 8.00 chs. dist.

78.83 Wagon road, bears N. and S.

79.98 The cor. of secs. 19, 20, 29 and 30.
Land, gently rolling.
Soil, sandy loam 2d. rate.
D. P. McCord's house and improvement are located on the N.W. 1/4, of the N.E. 1/4, of sec 29.

S. 89° 47' W. on a random line bet. secs. 19 and 30.

40.00 Set temp. 1/4 Sec. cor.

78.49 Intersect W. bdy. of the tp. 10 lks. N. of the cor. of secs. 19, 24, 25 and 30. Heretofore described.
Thence I run
N. 89° 43' E. on a true line bet. secs. 19 and 30
Over rolling land.

15.00 House of J. M. Smith bears S. 50 lks. dist.

17.00 Wagon road, bears N. and S.
N.W. cor. of field, thence along N. edge of same,

35.00 House of F. Walker, bears N. 8.00 chs. dist.

38.49 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24×24×12 ins. E. and W. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In E. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on N. face.

41.60 Drain, 50 lks. wide, course S.
N.E. cor. of field on line.

50.00 House of O. Fisher bears S. 10.00 chs. dist.

Chains

53.70 N.W. cor. of field on line, thence along N. edge
57.20 N.E. cor. of field on line, bear same,
61.20 N.W. cor. wire fence, bears S. 15 lks. dist.
75.00 House of W. S. Delany bears N.
78.49 The cor. of secs. 19, 20, 29 and 30.
Land, rolling.
Soil, sandy loam, 2d. rate.
Aug 27 th. At the cor. of secs. 19, 20, 29, and 30
I set off 9° 57' N. on the decl. arc, and at 0h, 7m p.m. l.m.t. observe the sun on the meridian the resulting lat. is 42° 5' 45", which is 0.1' greater than the proper latitude.

N. 0° 04' W. bet. secs. 19 and 20.
Over gently rolling land.

3.74 Wagon road, bears E. and W.

8.00 House of W. S. Delany, bears W.

16.65 S.E. cor. of field, thence along E. edge

30.00 N.E. cor. of field, bear same.

39.60 S.E. cor. of field, thence along E. edge.

40.00 Deposit a marked stone 12 ins. in the ground for 1/4 Sec. cor.; dig pits 24×24×12 ins. N. and S. of cor. 4 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high over deposit.
In S. pit drive a stake 2 ft. long 2 ins. sq. 12 ins. in the ground, marked 1/4 S. on W. face.

57.95 Clear field at N.E. cor.

58.50 Intersect bdy. line bet. S. Dak. and Neb. at a point from which the 45th. mile stone, which is a quartzite shaft 40×10×10 ins. above ground, firmly set, and properly marked, as described by the Surveyor general, bears W. 4.77 chs. dist.
Set a sandstone 22×14×3 ins. 16 ins. in the ground for closing cor. of tract, secs. 19 and 20, marked C.C. on S. with 5 grooves on E. and 1 groove on W. faces; dig pits

28 Subdivision of T. 35 N. R. 12 W.

Chains

24×24×12 ins. crossnise on each line. E. and W. 3 ft. and S. of stone 7 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.

Land. gently rolling.

Soil. sandy loam. 2d. rate

I return to the meridian established Aug. 24th, from Polaris. and at 4h 40m p.m. l.m.t. I set off 9° 56' N. on the decl. arc, and test the adjustment of my solar, finding it gives the same meridian. and adjustments correct.

Aug. 27th, 1895.

General description.

The surface of this fractional township is mostly rolling prairie. having a sandy loam soil. producing a thick growth of wild grasses; and when cultivated producing good crops.

There is a large number of settler in the township. the most of whom are farming quite extensively.

There is no timber in the township. and but little surface water. good water is obtained in wells.

Charles H. Bates.
U.S. Deputy Surveyor.

The latitude and longitude of the S.E. Cor of this township to appear on the plat is,

latitude 42° 58' N.
longitude 98° 40' W.

List of Names.

A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

....., showing

uty Surveyor, in surveying all

....., as are represented in the
it said survey has been in all
corner monuments established,

LIST OF NAMES.

A list of the names of the individuals employed by Charles H. Bates, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivisional and meander lines of fractional Tps. 34 and 35 N. Rs. 10 and 11 W. within the abandoned W. Randall military reservation. and fractional Tp. 35 N. R 12

west of the ~~fifth~~ Sixth principal meridian, in the ~~Territory of Dakota,~~ State of Nebraska showing the respective capacities in which they acted:

Tim Burns.	Chainman.
E. W. Hinsdale.	Chainman.
A. M. Fox.	Moundman
E. R. Cook	Moundman.
C. H. Armstrong.	Moundman.
H. M. Finotti	Moundman.
C. Wright	Flagman & Moundman

Subscribed and sworn to before me this .....
day of ....., 18

SEAL

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28 Subdivision of T. 35 N. R. 12 W.
Chains

24x24x12 ins. crossing on each line, E. and W. 3 ft. and S. of stone 7 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
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The latitude and longitude of the S.E. Cor of this township to appear on the plat is,
latitude 42° 58' N.
longitude 98° 40' W.

FINAL OATHS OF ASSISTANTS.

WE HEREBY CERTIFY that we assisted Charles H. Bates, U. S. Deputy Surveyor, in surveying all those parts or portions of the subdivisional and meander lines of fractional Tps. 34 and 35 N. Rs. 10 and 11 W. within the abandoned Ft. Randall Military reservation. and fractional Tp. 35 N. R. 12

west of the ~~fifth~~ Sixth principal meridian, ~~Territory of Dakota~~ State of Nebraska, as represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established according to the instructions furnished by the U. S. Surveyor General for South Dakota.

Tim Burns — Chainman.
E. W. Hinsdale — Chainman.
C. H. Armstrong — Mounduman.
H. M. Kinoll — Mounduman.
E. R. Cook — Mounduman.
A. M. Fox — Mounduman.
C. H. Wright — Flagman F.M.

Subscribed and sworn to before me this 6th day of Oct, 1895
R. Holloway
Notary Public

FINAL OATH OF U. S. DEPUTY SURVEYOR.

I, Charles H. Bates, U. S. Deputy Surveyor, do solemnly swear that in pursuance of instructions received from Richard B. Hughes, U. S. Surveyor General for Dakota, bearing date of the 28th day of March, 1895, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for South Dakota, the Manual of Instructions surveying ~~manual~~, and the laws of the United States, surveyed the subdivisional and meander lines of fractional Tps. 34 and 35 N., Rs. 10 and 11 W. within the abandoned Ft. Randall Military reservation, and fractional Tp. 35 N. R. 12

west of the ~~fifth~~ Sixth principal meridian, in the ~~Territory of Dakota~~ State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of surveying ~~manual, printed~~ Instructions, the special written instructions of the U. S. Surveyor General for South Dakota, and in the specific manner described in the field notes, and that the foregoing are the ~~true~~ original field notes of such survey, and should any fraud be detected I will suffer the penalty of perjury under the provisions of an act of Congress, approved August 8, 1846. Said field notes are contained in 5 books lettered L. M. N. O. and P.

Charles H. Bates
U. S. Deputy Surveyor.

Subscribed and sworn to before me this by said Charles H. Bates as Deputy Surveyor 7th day of Dec, 1895
J. S. Dimock
Clerk of the Circuit Court within and for Lincoln County, S. Dak.

Subscribed and sworn to before me this ..... day of ....., 18 .....

SEAL

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A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the ....., showing

..... as are rep.
at said survey has
corner monuments estab.

28 Subdivision of T. 35 N. R. 12 W.
Chains

24x24x12 ins. crossnise on each line, E. and W. 3 ft. and S. of stone 7 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.
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APPROVAL.

U. S. Surveyor General's Office,

Huron, ~~D. T.~~ So Dak, July 11, 1896

The foregoing field notes ~~of the survey of~~ Contained in One book lettered "P" of the survey of the subdivision lines of Tp. No 35 N. Rg. 12

west of the ~~fifth~~ sixth principal meridian, in ~~Dakota Territory~~ the State of Nebraska, executed by Charles H Bates

under his contract No 106 dated March 28th, 18~~8~~95, ~~in the month of ——, 188—~~, having been critically examined, the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

Richard B Hughes
U.S. Surveyor General.

13962—400

The latitude and longitude of the S.E. Cor of this township to appear on the plat is,
latitude 42° 58' N.
longitude 98° 40' W.

List of Names.

A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this ..... day of ....., 18

SEAL

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~~302~~

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of .....

.....

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.....

.....Meridian, in the....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

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Approval.

Office of the U. S. Surveyor General,

....., *18* .

The foregoing field notes of the survey of .....

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.....executed by

.....

under his Contract No....., dated....., 18 , having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in .....
....., has been correctly copied from the original notes on file in this office.

.....

U. S. Surveyor General.

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General Land Office • Original Field Notes

Book Number

756

The images in this file are photographs of the notes of the original surveys of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The original surveys in Nebraska began in the mid 1850's and were completed in the mid 1880's. The Nebraska office of the Surveyor General was closed June 30, 1886.