

GENERAL LAND OFFICE • ORIGINAL FIELD NOTES

BOOK NUMBER

753

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.

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Field Notes

Survey of T. 31 N. R. 32 W.
and "

Retracement of N. S. E. and W.
Boundaries
H

Executed by

J. D. Patterson,
U. S. Deputy Surveyor

Under General Land Office Contract No. 4733
Dated April 8th 1889
H

Received with letter from J. D. Patterson, D. B., July 15, 1889 - 85197
Examined & compared 53

No 2

State of Neb

(4-679.)

FIELD NOTES

OF THE SURVEY OF

or re-tracement of

The North, South, East & West

Boundaries

of

Township No. 31 North

Range No. 32 West

Of the 6th Principal Meridian,

in Nebraska

AS SURVEYED BY

J. D. Patterson, U. S. Deputy Surveyor

Under his Contract No. 4733, dated April 8th, 1889.

Survey commenced June 3rd, 1889.

Survey completed June 11th, 1889.

Names and Duties of Assistants.

Charles G. Patterson Chairman
 Charles King Chairman
 Clarence Cutcomb Axeman
 Julius Fisher Axeman
 Henry Peters Flagman

received letter from J. D. Patterson, D. S., July 15, 1889 - 85, 197.

State of Neb

(4-670.)

FIELD NOTES

OF THE SURVEY OF

The Subdivision lines
 of
 Township No. 31. North,
 Range No 32 West

Of the 6th Principal Meridian,

in Nebraska

AS SURVEYED BY

Joseph D. Patterson, U. S. Deputy Surveyor,
 With Com^r General Land Office

Under his Contract No. 4753A, dated April 8th, 1889.

Survey commenced June 12th, 1889.

Survey completed June 22nd, 1889.

(1878-1, 904) 6-151

Leather label
 on back
 H

T 31 N
 R 32 W
 and
 Re-assignment
 of
 the Boundaries

Additional
 survey
 in
 T. 32 N. R. 32 W.

also to binding
 of

b.

Names and Duties of Assistants.

Charles S. Patterson Chairman
 Charles King Chairman
 Clarence Catecomb Axeman
 Julius Fisher Axeman
 Henry Peters Flagman

c.

INDEX DIAGRAM.

Township 31 N., Range 32 W

| | | | | | |
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Meanders Page



d

Preliminary Oaths of Assistants.

We, Charles E. Patterson and Charles King

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

Subdivision lines of Township 31 North Range 32 West of the 6th Principal Meridian in Nebraska

Charles E. Patterson, Chairman.

Charles King, Chairman.

Chairman.

Chairman.

Subscribed and sworn to before me this 29th day of May, 1887.

J. D. Sweeney

Notary Public in & for Safford Co. Neb.

We, Clarence Cutcomb and Julius Fisher

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

Subdivision lines of Township 31 North Range 32 West of the 6th Principal Meridian in Nebraska

Subscribed and sworn to before me this 1st day of June, 1887.

Clarence Cutcomb, Axeman.

Julius Fisher, Axeman.

A. D. Allen

Notary Public in and for Cherry County Nebraska

Subdivision of T. 31 N., R. 32 W.

chains

On the night of June 11th 1887 at my camp on Snake river about 10 ch. South of the S.E. corner of Sec. 31 T. 31 N. R. 32 W. I took an observation on the Star Polaris in accordance with instructions contained in the Manual of Survey and drove pickets on the line thus established.

Survey commenced June 12th 1887, with a Gurley Light Mountain Transit No. with a 4 in. needle variation plate. Two verniers to limb, and vertical arc - all reading to single minutes and telescope magnifying 20 diameter every part of the instrument being in good order and perfect adjustment as shown by the usual tests.

Before commencing this survey I test my instrument on the line established last night and find it correct and the variation to be 13° 43' E. This was being the same as that obtained June 1st in Sec 7.

I also test my chain by comparison with a Chesterman Steel Tape and find it to be correct, i.e. 66.06 ft in length.

From the cor. to Tps. 30 & 31 N. rgs. 31 & 32 W. which is a cedar post 4 1/2 ft. long, 4 ins square with charred stake set in the ground and marked

T. 31 N. R. 31 W. S. 31 on N.E. face
T. 31 N. R. 32 W. S. 36 " N.W. "
T. 30 N. R. 32 W. S. 1 " S.W. "
T. 30 N. R. 31 W. S. 6 " S.E. "

with 6 notches on each edge with pits 24 x 24 x 12 ins, N. S. E. & W. 6 ft distant and a mound of earth around post 2 1/2 ft high 6 ft base.

I run N. 2° 56' E. on E. boundary of Sec 36
i.e. 13° 43' E.

at 40.02 chs found the 1/4 sec. cor. and

Subdivision of T 31 N R 32 W

chains at 80.10 chs. the Sec. Cor. The true course of the East boundary is therefore N. 2° 56' E.

From the Township corner above described, I run S. 89° 50' W. on the South boundary of Sec. 36. At 40.00 chs. found $\frac{1}{4}$ sec. cor. and at 80.00 found Sec. Cor. The true course of the South boundary is therefore S. 89° 50' W. My transit will therefore with the above named courses run the subdivision lines parallel to the East & South boundaries of the Township.

I commenced at the corner to Secs. 35 & 36 on its South boundary which is a cedar post 4 ft. long, 4 ins. square with charred stake set in the ground and marked

T. 31 R. 32 S. 36 on N. E. face

T. 31 R. 32 S. 35 " N. W. "

with 1 notch on the E. & 5 notches on the W. edges. also with pits 24x18x12 ins. N. E. & N. W. of Cor. 5 1/2 ft. distant and a mound of earth 2 1/2 ft. high with 5 ft. base around post.

Thence I run N. 2° 56' E. bet. Secs. 35 & 36. or 13° 43' E.

5.00 South foot of sand ridge and ascend.

14.20 Top of sand ridge 100 ft. high trending E. & W. and thence over very broken ground

40.00 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits 18x18x12 ins. N. & S. of Cor. 5 1/2 ft. distant and raised a mound of earth 2 ft. high, 4 1/2 ft. base over it. In North pit drove a cedar stake 24 ins. long 2 ins. square, 12 ins. in the ground marked $\frac{1}{4}$ S. on W. face.

80.00 Set a cedar post 4 ft. long, 4 ins. square with charred stake 12 ins. in the ground for cor. to Secs. 25, 26, 35 & 36 marked

T. 31 R. 32 S. 25 on N. E. face

T. 31 R. 32 S. 26 " N. W. "

T. 31 R. 32 S. 35 " S. W. "

Subdivision of T. 31 N., R. 32 W.

chains T. 31 R. 32 S. 36 on S. E. face with 1 notch on E. & 1 notch on E. edges.

Dug pits in each Sec. 5 1/2 ft. distant and raised a mound of earth 2 1/2 ft. high with 5 ft. base around post.

Land very broken.

Soil 4th rate,

Vegetation scanty bunch grass.

N. 89° 50' E. on a random line between Secs 25 & 36

40.00 Set temporary $\frac{1}{4}$ sec. cor.

80.05 Intersect East boundary of Township

17 lks N. of cor. to Secs. 30, 25, 36 & 31

which is a cedar post 4 ft. long, 4 ins. with charred stake square set 2 1/2 ft. in the ground marked

T. 31 R. 31 S. 30 on N. E. face

T. 31 R. 32 S. 25 " N. W. "

T. 31 R. 32 S. 36 " S. W. "

T. 31 R. 31 S. 31 " S. E. "

with 1 notch on S. & 5 notches on N. edges. and a cedar stake 5 1/2 ft. S. E. of post.

Thence I run S. 89° 57' W. on a true line between Secs. 25 & 36 with same cor. over high broken ground.

36.00 Descend.

38.00 Enter valley about 10 chs. wide trending E. & W.

40.02 1/2 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits 18x18x12 ins. E. & W. 5 1/2 ft. distant and raised a mound of earth around post 2 ft. high, 4 1/2 ft. base. In E. pit drove a cedar stake 2 ft. long, 2 ins. square, 12 ins. in the ground marked $\frac{1}{4}$ S. on N. face.

70.20 Secure valley which was cut in two nearly equal parts by this line and enter broken land.

80.05 The cor. to Secs. 25, 26, 35 & 36.

Land broken except in valley

Soil 3^d & 4th rate

Vegetation Bunch grass.

Subdivision of T. 31 N., R. 32 W.

chains N. 2° 56' E. between sections 25 & 26
Va. 13° 43' E.

over high broken ground,
40.00 Deposited a charred stake 12 ins. in
the ground for 1/4 sec. cor. dug pits
18x18x12 ins N. & S. 5 1/2 ft. distant and
raised a mound of earth 2 ft. high
4 1/2 ft. base, over it. In N. pit drove
a cedar stake 2 ft. long 2 ins square
12 ins. in the ground marked 1/4 S. on W. face
62.00 Top of sand ridge 120 ft. high trending E & W
and descend.

80.00 Set Cedar post 4 ft. long, 4 ins. square
12 ins. in the ground for cor. to secs.
24, 23, 26 & 25. marked

- T. 31 R. 32 S. 24 on N.E. face
- T. 31 R. 32 S. 23 " N.W. "
- T. 31 R. 32 S. 26 " S.W. "
- T. 31 R. 32 S. 25 " S.E. "

with 2 notches on S. & 1 notch on E. edges.
Dug pits 18x18x12 ins. in each sec.
5 1/2 ft. distant and raised a mound
of earth 2 1/2 ft. high 5 ft. base around post.

Land Broken;
Soil 4th rate,
Vegetation Bunch grass.

Etc.

N. 89° 56' E. on a random line between Secs. 24 & 25
Va. 13° 43' E.

40.00 Set temporary 1/4 sec. cor.
79.75 Intersect E. boundary of township 10 lbs.
N. of ^{corner} Secs 19, 24, 25 & 30. which is a cedar
post 4 ft. long, 4 ins square with charred stake
& marked T. 31 R. 34. S. 19 on N.E. face
T. 31 R. 32 S. 24 " N.W. "
T. 31 R. 32 S. 25 " S.W. "
T. 31 R. 34 S. 30 " S.E. "

with 4 notches on N. & 2 notches on S. edges
and pits 18x18x12 ins. in each sec. 5 1/2
ft. dist & a mound of earth 2 1/2 ft. high
5 ft. base around post, & Cedar stake in S.E. pit.

Subdivision of T. 31 N., R. 32 W.

chains Thence S. 89° 54' W. on a true line between
secs 24 & 25 with same va. over very
broken ground along N. slope of a range
of sand hills.

39.89 Deposited a charred stake 12 ins. in
the ground for 1/4 sec. cor. Dug pits
18x18x12 ins E. & W. 5 1/2 ft. distant and
raised a mound of earth 2 ft. high
4 1/2 ft. base over it. In E. pit drove
a cedar stake 2 ft. long 2 ins. square
12 ins. in the ground marked 1/4 S. on N. face.

79.78 The corner secs. 24, 23, 26 & 25.
Land very broken. A range of sand
hills on the S. and level valley about
1/2 a mile wide on the N. the whole
length of this line
Soil 4th rate
Vegetation Bunch grass.
Etc

N. 2° 56' E. between Secs. 23 & 24
Va. 13° 43' E.

8.00 Enter valley trending E & W, thence
over level land

40.00 Deposited a charred stake 12 ins.
in the ground for 1/4 sec. cor. Dug
pits 18x18x12 ins. N. & S. of cor. 5 1/2 ft.
distant and raised a mound of earth
2 ft. high 4 1/2 ft. base over it. In N.
pit drove a cedar stake 2 ft. long 2
ins. square 12 ins. in the ground
marked 1/4 S. on W. face.

43.00 Leave valley and ascend. Valley only
extends 6 or 7 chs. W. of this line.

59.50 Top of sand ridge 100 ft. high trending E & W.
and descend.

80.00 Set a Cedar post 4 ft. long 4 ins. square
with charred stake 12 ins. in the
ground for cor. to Secs. 13, 14, 23 & 24
marked T. 31 R. 32 S. 13 on N.E. face
T. 31 R. 32 S. 14 " N.W. "
T. 31 R. 32 S. 23 " S.W. "

Subdivision of T. 31 N. R. 32 W.

chains T. 31 R. 32 S. 24 on S. E. face.
with 3 notches on S. & 1 notch on E. edges.
Dug pits 18x18x12 ins. in each sec. 5 1/2
ft. distant and raised a mound of
earth 2 1/2 ft. high 5 ft. base around post.
Land broken except in valleys
Soil 3^d & 4th rate.
Vegetation bunch grass.
Etc.

N. 89° 50' E. on a random line between Secs 13 & 24
Va. 13° 43' E.

40.00 Set temporary 1/4 sec. cor.
80.02 Intersect E. boundary of Township 5 ths.
E. of cor. to Secs. 18, 13, 24 & 19 which is a
cedar post 4 ft. long, 4 ins. square with
charred stake set 2 1/2 ft. in the ground
& marked T. 31 R. 32 S. 18 on N. E. face
T. 31 R. 32 S. 13 " N. W. "
T. 31 R. 32 S. 24 " S. W. "
T. 31 R. 32 S. 19 " S. E. "

with 3 notches on S. & 3 notches on N. edges.
and old cedar stake 5 1/2 ft. S. E. of post.
Thence I run S. 89° 48' W. on a true
line between Secs 13 & 24 with same Va
over rolling ground with high sand ridge
about 20 chs. south.

40.01 Deposited a charred stake 12 ins.
in the ground for 1/4 sec. cor. Dug
pits 18x18x12 ins. E. & W. of cor. 5 1/2 ft.
distant and raised a mound of earth
2 ft. high 4 1/2 ft. base over it. In E.
pit drove a cedar stake 2 ft. long &
ins square marked 1/4 S. on N. face.
(1/2 in in the ground)

80.02 The Cor. to Secs. 13, 14, 23 & 24.
Land rolling.
Soil 3^d & 4th rate.
Vegetation bunch grass.
Etc.

N. 2° 56' E. between Sections 13 & 14
Va. 13° 43' E.

20.00 Enter long narrow valley trending E. & W.

Subdivision of T. 31 N., R. 32 W.

chains
22.50

Leave valley which extends about
20 chs. E. and 1 mile or more west
of this line. Enter broken land & ascend.

40.00

Deposited a charred stake 12 ins.
in the ground for 1/4 sec. cor. Dug
pits 18x18x12 ins. N. & S. of cor. 5 1/2 ft.
distant and raised a mound of
earth 2 ft. high, 4 1/2 ft. base over it.
In N. pit drove a cedar stake 2
ft. long 2 ins. square marked 1/4 S. on
W. face.

46.00

Top of sand ridge 125 ft. high trending
N. E. & SW & descend over very broken ground

80.00

Set cedar post 4 ft. long 4 ins square
with charred stake 12 ins. in the ground
for cor. to Secs. 12, 11, 19 & 13. marked
T. 31 R. 32 S. 12 on N. E. face
T. 31 R. 32 S. 11 " N. W. "
T. 31 R. 32 S. 14 " S. W. "
T. 31 R. 32 S. 13 " S. E. "

with 4 notches on S. & 1 notch on E. edges.
Dug pits 18x18x12 ins. in each sec.
5 1/2 ft. distant and raised a mound
of earth 2 1/2 ft. high 5 ft. base around post.

Land mostly broken,
Soil 3^d & 4th rate.

Vegetation bunch grass.
June 12th 1889,
Etc.

N. 89° 50' E. on random line between Secs. 12 & 13
Va. 13° 43' E.

40.00

Set temporary 1/4 sec. cor.

80.10

Intersect E. boundary of township
30 ths. S. of cor. to Secs. 7, 12, 13 & 18,
which is a cedar post 4 ft. long, 4 ins.
square with charred stake set 2 1/2
ft. in the ground and marked

T. 31 R. 32 S. 7 on N. E. face
T. 31 R. 32 S. 12 " N. W. "
T. 31 R. 32 S. 13 " S. W. "
T. 31 R. 31 S. 18 " S. E. "

with 4 notches on S. & 2 notches on N. edges.

Subdivision of T. 31 N., R. 32 W.

- chains, and see old cedar stake $5\frac{1}{2}$ ft S.E. of it.
Thence I run S. $89^{\circ}37'$ W. on true line between Secs. 12 & 13 with same va., over rolling ground
- 40.05 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits $15 \times 15 \times 12$ ins. E. & W. of cor. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high, $4\frac{1}{2}$ ft. base over it. In E. pit drove a cedar stake 2 ft. long, 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on N. face.
- 64.30 Top of sand ridge 140 ft. high trending N. & S. and descend
- 80.10 The cor. to secs. 12, 11, 14 & 13.
Land rolling & broken.
Soil 3^d & 4th rate.
Vegetation Bunch grass,
etc

N. $2^{\circ}56'$ E. between Sections 11 & 12,
va. $13^{\circ}43'$ E.

- over very broken ground
- 40.00 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits $15 \times 15 \times 12$ ins. N. & S. of cor. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base over it. In N. pit drove a cedar stake 2 ft. long, 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on W. face.
- 40.25 Top of sand ridge 100 ft. high trending N.W. & S.E. (this is the same ridge I crossed between Secs 13 & 14 & again between Secs 12 & 13.) and descend.
- 62.00 Bottom of deep hollow trending E. & W.
- 80.00 Set a cedar post 4 ft. long 4 ins. square with charred stake 12 ins. in the ground for cor. to secs. 1, 2, 11 & 12 marked
- | | | | |
|-------|-------|-------|---------------|
| T. 31 | R. 32 | S. 1 | on N. E. face |
| T. 31 | R. 32 | S. 2 | " N.W. " |
| T. 31 | R. 32 | S. 11 | " S.W. " |

Subdivision of T. 31 N., R. 32 W.

- chains T. 31 R. 32 S. 12 on S. E. face with 5 notches on S. & 1 notch on E. edges. Dug pits $15 \times 15 \times 12$ ins. in each section $5\frac{1}{2}$ ft. ^{distant} from cor. & raised a mound of earth 2 ft. high 5 ft. base around post. Land very broken.
Soil 4th rate.
Vegetation Bunch grass,
etc

N. $89^{\circ}50'$ E. on random line between Secs 12 & 12
va. $13^{\circ}43'$ E.

- 40.00 Set temporary $\frac{1}{4}$ sec. cor.
- 80.12 Intersect the E. boundary of the township at the cor. to secs. 6, 1, 12 & 7 which is a cedar post 4 ft. long 4 ins. square with charred stake 2 ¹/₂ marked
- | | | | |
|-------|-------|-------|---------------|
| T. 31 | R. 31 | S. 6 | on N. E. face |
| T. 31 | R. 32 | S. 1 | " N.W. " |
| T. 31 | R. 32 | S. 12 | " S.W. " |
| T. 31 | R. 31 | S. 7 | S.E. " |
- with 5 notches on S. & 1 notch on N. edges. and pits $15 \times 15 \times 12$ ins. in each sec. $5\frac{1}{2}$ ft. distant with a mound of earth around post 2 ft. high 5 ft. base.
- Thence I run S. $89^{\circ}50'$ W. on a true line between Secs. 12 & 12 with same va. over level and rolling ground.
- 40.06 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits $15 \times 15 \times 12$ ins. E. & W. of cor. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base over it. In E. pit drove a cedar stake 2 ft. long 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on N. face.
- Thence over broken ground among sand hills
- 80.12 The cor. to secs. 1, 2, 11 & 12.
Land. Generally broken Soil 3^d rate.
Vegetation Bunch grass,
etc

Subdivision of T. 31 N., R. 32 W.

chains N 2°56' E on random line between Secs 1 & 2
 Va 13°43' E.

40.00 Set temporary ¼ sec. cor.
 69.40 Intersect N.S. line of township 15 lbs. W.
 of cor'd sec. 1 & 2 on north boundary
 which is a cedar post 4 ft. long 4 ins.
 square with charred stake & marked
 T. 31 R. 32 S. 1 on S.E. face
 T. 31 R. 32 S. 2 " S.W. "

with 1 notch on E. & 5 notches on W. edges
 and pits 24 x 18 x 12 ins. S.W. & S.E. of
 post 5 ½ ft. distant and a mound of
 earth 2 ½ ft. high 5 ft. base around post
 Thence I run S. 3°03' W. on a true
 line between sections 1 & 2 with same
 va. Descending

10.00 Enter long narrow valley trending E. & W.
 20.00 Leave valley and enter sand hills
 29.40 Deposited a charred stake 12 ins. in
 the ground for ¼ sec. cor. Dry pits
 18 x 18 x 12 ins. N. & S. of cor 5 ½ ft. distant
 and raised a mound of earth 2 ft.
 high 4 ½ ft. base over it. In N.
 pit drove a cedar stake 2 ft. long
 2 ins. square 12 ins. in the ground
 marked ¼ S. on W. face.

63.60 Top of East^{end} of a range of sand hills 100
 ft. high & trending E. & W.

69.40 The cor'd sec. 1, 2, 11, & 12.
 Land generally broken,
 Soil 3rd & 4th rate.
 Vegetation Brush grass.

June 13th 1889
 S.F.O.

From Cor'd Secs 34 & 35 on South
 Boundary which is a cedar post 4
 ft. long 4 ins. square with charred
 stake & marked T. 31 R. 32 S. 35 on N.E. face
 T. 31 R. 32 S. 34 " N.W. "
 with 2 notches on E. & 4 notches on W. edges
 and pits 24 x 18 x 12 ins. N.E. & N.W. of

Subdivision of T. 31 N., R. 32 W.

chains of cor 5 ½ ft. distant, with mound of
 earth 2 ½ ft. high 5 ft. base around post
 Same N. 2°56' E. between Secs 34 & 35
 Va 13°43' E.

Over rolling land.

12.00 Leave rolling land and ascend
 25.40 Top of sand ridge 120 ft. high trending E. & W.
 Enter rough sand hills

40.00 Deposited a charred stake 12 ins.
 in the ground for ¼ sec. cor. Dry
 pits 18 x 18 x 12 ins. N. & S. of cor. 5 ½ ft.
 distant and raised a mound of earth
 2 ft. high 4 ½ ft. base over it. In North
 pit drove a cedar stake 2 ft. long 2 ins.
 square 12 ins. in the ground marked
 ¼ S. on W. face

80.00 Set a cedar post 4 ft. long 4 ins.
 square with charred stake for cor.
 to Secs. 26, 27, 34 & 35 marked
 T. 31 R. 32 S. 26 on N.E. face
 T. 31 R. 32 S. 27 " N.W. "
 T. 31 R. 32 S. 34 " S.W. "
 T. 31 R. 32 S. 35 " S.E. "

with 1 notch on S. & 2 notches on E. edges
 dry pits 18 x 18 x 12 ins. in each section
 5 ½ ft. distant and raised a mound
 of earth 2 ½ ft. high 5 ft. base around post.
 Land very broken,
 Soil 4th rate,
 Vegetation Brush grass.
 S.F.O.

N. 89°50' E on random line between Secs 26 & 35
 Va 13°43' E.

40.00 Set Temporary ¼ sec. cor.
 80.20 Intersect N.S. line 33 lbs. S. of cor to
 Secs. 25, 26, 35 & 36
 Thence I run S. 89°36' W. on true line
 between Secs. 26 & 35 with same va.
 Over broken ground among sand hills
 blow-outs & basins.
 40.10 Deposited a charred stake 12 ins.

Subdivision of T. 31 N., R. 32 W.

chains in the ground for $\frac{1}{4}$ sec. cor. Dug pits $18 \times 18 \times 12$ ins. E. & W. of cor. $5\frac{1}{2}$ ft distant and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base over it. In E. pit drove a cedar stake 2 ft. long 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on N. face.

80.20 The cor. to Secs. 26, 27, 34 & 35:

Land very broken,
Soil 4th rate,
Vegetation Bunch grass.

N. $2^{\circ}56'E$. between Secs. 26 & 27

va. $13^{\circ}43'E$.

Over very broken ground generally ascending.

21.50 Top of sand ridge 140 ft high trending N.E. & S.W.

40.00 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits $18 \times 18 \times 12$ ins. N. & S. of cor. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base over it. In N. pit drove a cedar stake 2 ft long 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on W. face.

80.00 Set a cedar post 4 ft. long, 4 ins. square with charred stake 12 ins. in the ground for cor. to Secs. 23, 22, 27 & 26. Marked

T. 31 R. 32 S. 23 on N.E. face

T. 31 R. 32 S. 22 " N.W. "

T. 31 R. 32 S. 27 " S.W. "

T. 31 R. 32 S. 26 " S.E. "

with 2 notches on S. & 2 notches on E. edge.

Dug pits $18 \times 18 \times 12$ ins in each sec. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 $\frac{1}{2}$ ft. high, 5 ft. base around post.

Land very broken. The last 60 chains among ^{with} sand hills blow-outs & basins

Soil 4th rate,
Vegetation Bunch Grass,

Subdivision of T. 31 N., R. 32 W.

chains N. $89^{\circ}38'E$. on random line between Secs. 23 & 26
va. $13^{\circ}43'E$.

40.00 Set temporary $\frac{1}{4}$ sec. cor.

80.16 Intersect N. & S. line 40 lks S. of cor. to Secs. 24, 23, 26 & 25

Thence I run S. $89^{\circ}33'W$. on a true line between Secs 23 & 26 with same va.

Over very broken ground.

40.08 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits ^{18x18x12} E. & W. of cor. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base over it. In E. pit drove a cedar stake 2 ft. long 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on N. face.

80.16 The cor. to Secs 23, 22, 27 & 26.

Land very broken with basins blow-outs and formless sand hills on every side.

Soil 4th rate.

Vegetation Scanty bunch grass.

N. $2^{\circ}56'E$. between Secs. 23 & 22.

va. $13^{\circ}43'E$.

Over very broken ground.

40.00 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits $18 \times 18 \times 12$ ins. N. & S. of cor. $5\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base over it. In N. pit drove a cedar stake 2 ft. long 2 ins. square 12 ins. in the ground marked $\frac{1}{4}$ S. on W. face.

48.20 Top of sand ridge 100 ft high trending N.E. & S.W. 2 Secs

75.00 Enter narrow valley trending E. & W.

80.00 Set a cedar post 4 ft long 4 ins (with charred stake) square 12 ins. in the ground for cor. to Secs. 14, 15, 22 & 23. Marked

Subdivision of T 31 N R 32 W.

chains
 T, 31 R, 32 S, 14 on N.E. face
 T, 31 R, 32 S, 15 " N.W. "
 T, 31 R, 32 S, 22 " S.W. "
 T, 31 R, 32 S, 23 " S.E. "
 with 3 matches on S, & 2 matches on E. edges
 Dug pits 18x18x12 ins. in each sec.
 5 1/2 ft. distant and raised a mound
 of earth 2 1/2 ft. high 5 ft. base around
 post.
 Land very broken except in valley.
 Soil 3^d & 4th rate.
 Vegetation bunch grass.
 Etc

N. 89° 50' E. on random line between Secs 14 & 23
 va 13° 43' E.

40.00 Set temporary 1/4 sec. cor.
 80.16 Intersect N. & S. line 17 chs. S. of cor
 to Secs 13, 14, 23 & 24.
 Thence I run S. 89° 43' W. on true line
 between Secs. 14 & 23 with same va.
 Over rolling ground with south side
 of valley about 2 chs. N. of line. Valley about
 20 chs. wide.
 40.08 Deposited a charred stake 12 ins.
 in the ground for 1/4 sec. cor. Dug
 pits 18x18x12 ins. E. & W. of cor. 5 1/2 ft.
 distant and raised a mound
 of earth 2 ft. high 4 1/2 ft. base over
 it. In E. pit drove a cedar
 stake 2 ft. long 2 ins. square 12 ins.
 in the ground marked 1/4 S. on N. face.
 41.00 Enter valley thence over level land
 80.16 The cor. to Secs. 14, 15, 22 & 23
 Land broken or rolling except
 valley which is level.
 Soil 3^d & 4th rate.
 Vegetation Bunch grass.
 Etc. June 14th 1859
 N. 2° 56' E. between Secs 14 & 15
 va 13° 43' E.
 Over level land.

Subdivision of T. 31 N., R. 32 W.

chains
 10.00 Leave valley & enter low rolling land
 40.00 Deposited a charred stake 12 ins. in
 the ground for 1/4 sec. cor. Dug
 pits 18x18x12 ins. N. & S. of cor. 5 1/2 ft.
 distant and raised a mound of
 earth 2 ft. high, 4 1/2 ft. base over it.
 In N. pit drove a cedar stake 2 ft.
 long 2 ins. square 12 ins. in the
 ground marked 1/4 S. on W. face.
 Thence over more broken ground
 generally ascending.
 68.00 Top of E. end of sand ridge 100 ft.
 high trending E. & W.
 80.00 Set a cedar post 4 ft. long, 4 ins.
 square 12 ins. in the ground for
 cor. to Secs. 11, 10, 15 & 14. Marked
 T, 31 R, 32 S, 11 on N.E. face
 T, 31 R, 32 S, 10 " N.W. "
 T, 31 R, 32 S, 15 " S.W. "
 T, 31 R, 32 S, 14 " S.E. "
 with 4 matches on S, & 2 matches on E. edges.
 Dug pits 18x18x12 ins. in each sec. 5 1/2
 ft. distant and raised a mound
 of earth around post 2 1/2 ft. high
 5 ft. base.
 Land rolling & broken except valley
 which is level.
 Soil 3^d & 4th rate.
 Vegetation Bunch grass.
 Etc

N. 89° 50' E. on random line between Secs. 11 & 14
 va 13° 43' E.

40.00 Set temporary 1/4 sec. cor.
 79.76 Intersect N. & S. line at cor. to Secs
 12, 11, 14 & 13.
 Thence I run S. 89° 50' W. on a true
 line between Secs 11 & 14 with same va.
 Over rolling land
 34.00 Enter valley about 30 chs. long trending
 N.E. & S.W. about 2/3 of valley S. of this line

Subdivision of T. 31 N., R. 32 W.

- chains
37.98 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits 18x18x12 ins. E. & W. of cor. 5 $\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high 4 $\frac{1}{2}$ ft. base over it.
- 46.00 Leave valley & enter rolling & broken land
- 79.96 The cor. to Secs. 11, 10, 15 & 14
Land rolling & broken, valley level.
Soil 3^d & 4th rate
Vegetation Bunch grass.
E & C
-
- N. 2° 56' E., between Secs. 11 & 10
Va. 13° 43' E.
Over rolling sand hills
- 25.60 Enter valley about 40 chs. long trending N. E. & S. W. about $\frac{1}{2}$ mi. on each side of line.
- 40.00 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits 18x18x12 ins. N. & S. of cor. 5 $\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high, 4 $\frac{1}{2}$ ft. base over it. In N. pit drove a cedar stake 2 ft. long 2 ins. square
- 55.00 Leave valley & enter rolling sand hills
- 79.00 3 feet of high sand ridge trending E. & W.
- 80.00 Set a cedar post 4 ft. long 4 ins. square with charred stake 12 ins. in the ground for cor. to Secs. 2, 3, 10 & 11 marked T. 31 R. 32 S. 2 on N. E. face
T. 31 R. 32 S. 3 " N. W. "
T. 31 R. 32 S. 10 " S. W. "
T. 31 R. 32 S. 11 " S. E. "
- with 5 notches on S. & 2 notches on E. edges.
Dug pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. distant and raised a mound of earth 2 $\frac{1}{2}$ ft. high 5 ft. base around post.
Land rolling - except valley.
Soil 3^d & 4th rate
Vegetation Bunch grass.
E
-
- N. 89° 50' E., on a random line between Secs. 2 & 11
Va. 13° 43' E.
- 40.00 Set temporary $\frac{1}{4}$ sec. cor.

Subdivision of T. 31 N., R. 32 W.

- chains
80.02 Intersect N. & S. line 22 lbs N. of cor. to Secs. 1, 2, 11 & 12
Thence I run S. 89° 59' W. on a true line between Secs. 2 & 11. with same Va. over very broken ground along south face of high sand ridge.
- 40.01 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug pits 18x18x12 ins. E. & W. of cor. 5 $\frac{1}{2}$ ft. distant and raised a mound of earth 2 ft. high 4 $\frac{1}{2}$ ft. base over it. In E. pit drove a cedar stake 2 ft. long 2 ins. square - 12 ins. in the ground marked $\frac{1}{4}$ sec. N. face.
- 80.02 The cor. to Secs. 2, 3, 10 & 11
Land very broken N. of line. & rolling S. of it.
Soil 4th rate
Vegetation Bunch grass
E & C
-
- N. 2° 56' E. on a random line between Secs. 2 & 3,
Va. 13° 43' E.
- 40.00 Set temporary $\frac{1}{4}$ sec. cor.
- 71.32 Intersect N. boundary of township 37 lbs. E. of cor. to Secs. 2 & 3 on N. boundary which is a cedar post 4 ft. long 4 ins. square with charred stake set 2 $\frac{1}{2}$ ft. in the ground & marked
T. 31 R. 32 S. 2 on S. E. face
T. 31 R. 32 S. 3 " S. W. "
- with 2 notches on E. & 4 notches on W. edges
Thence I run S. 2° 36' W. on a true line between Secs. 2 & 3 with same Va.
Descend over rolling sand hills.
- 10.00 Enter long valley trending E. & W. This valley turns N. about $\frac{1}{2}$ mile W. of this line
- 21.50 Leave valley & enter rolling sand hills
- 31.32 Deposited a charred stake 12 ins. in the ground for $\frac{1}{4}$ sec. cor. Dug

Subdivision of T. 31 N., R. 32 W.

chains pits 18x18x12 N. & S. of car, 5 1/2 ft. distant and raised a mound of earth 2 ft. high 4 1/2 ft. base over it. In N. pit drove a cedar stake 2 ft long, 2 ins square 12 ins in the ground marked 1/4 S. on W. face.

58.20 Top of high sand ridge

64.50 Top of sand ridge 125 ft. high trending E. & W. & descend.

71.32 The Cor. to Secs. 23, 10 & 11

Land rolling or broken except valley which is level.

Soil 3rd & 4th rate

Vegetation Bunch grass
S.W. June 15th 1889

From cor. to Secs. 33 & 34 on S. boundary of township which is a cedar post 4 ft long 4 ins square with charred stake set 12 ins in the ground & marked

T 31 R 32 S 34 on N.E. face

T 31 R 32 S 33 .. NW ..

with 3 matches on E & 3 matches on W faces

and pits 24x18x12 N.E. & N.W. of post 5 1/2 ft distant & a mound of earth 2 1/2 ft high 5 ft base around post.

I run N 2° 56' E between Secs 33 & 34

wa 13° 43'

Over rolling ground

7.00 Enter very broken ground and ascend

38.00 Top of sand ridge 150 ft high trending E & W & descend

40.00 Deposited a charred stake 12 ins in the ground for 1/4 sec cor. Dug pits 18x18x12 N. & S. of car 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it. In W pit drove a cedar stake 2 ft long 2 ins square 12 ins in the ground marked 1/4 S on W face

Thence over broken & rolling land

Subdivision of T. 31 N., R. 32 W.

chains

59.60

Enter valley about 1 mile long trending NW & SE & extending about 20 chs to the East of this line

75.00

Leave valley & enter low sand hills.

80.00

Set a cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for cor to Secs 27, 28, 33 & 34 marked

T 31 R 32 S 27 on N.E. face

T 31 R 32 S 28 .. NW ..

T 31 R 32 S 33 .. SW ..

T 31 R 32 S 34 .. SE ..

with 1 match on S & 3 matches on E edges.

Dug pits 18x18x12 ins in each sec 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high with 5 ft base.

Land generally broken - valley level

Soil 3rd & 4th rate

Vegetation Bunch grass.

N 89° 50' E on a random line between Secs. 27 & 34

wa 13° 43' E

40.00 Set Temporary 1/4 Sec Cor.

39.90 Intersect N & S line at cor to Secs 26, 27, 34 & 35

Thence I run S 89° 50' W on a true line between Secs 27 & 34 with same wa. Over low rolling sand hills

39.95

Deposited a charred stake 12 ins in the ground for 1/4 sec cor. Dug pits 18x18x12 E & W of car 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it.

79.90

The cor. to Secs 27, 28, 33 & 34

Land rolling

Soil 3rd & 4th rate

Vegetation Bunch grass

N 2° 56' E. between sections 27 & 28

wa 13° 43' E.

Subdivision of T. 31 N., R. 32 W.

- Chains Over low rolling sand hills
- 40.00 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ sec cor. Dug pits 18x18x12 ins N & S of Cor. 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it. In N pit drove a cedar stake 2 ft long 2 ins square 12 ins in the ground marked $\frac{1}{4}$ S on W face.
- 48.00 Enter valley 1/2 mile long trending NE & SW - about 1/2 of valley on each side of this line
- 59.50 Leave valley and enter rolling sand hills.
- 80.00 Set a cedar post 4 ft long, 4 ins square with charred stake ^{12 ins in the ground} for cor to Secs. 22, 21, 28 & 27, Dug pits 18x18x12 ins in each sec 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high 5 ft base.
- Land rolling - L. valley level
Soil 3^d & 4th rate
Vegetation Bunch grass

N. 89° 50' E on a random line between sections 22 & 27
Va 13° 43' E.

- 40.00 Set temporary $\frac{1}{4}$ sec cor.
- 80.04 Intersect N & S line 24 lbs N of cor to Secs. 23, 22, 27 & 26
Thence I run West on a true line between Secs. 22 & 27 with same Va
Over rolling ground & low sand hills
- 40.02 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ Sec. cor. Dug pits ^{18x18x12 ins} E & W of Cor. 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it. In E pit drove a cedar stake 2 ft long 2 ins square

Subdivision of T 31 N R 32 W.

- chains marked $\frac{1}{4}$ S on N face.
- 80.04 The cor. to Secs. 22, 21, 28 & 27
Land rolling
Soil 3^d & 4th rate
Vegetation Bunch grass
-
- N 256° E between Secs 22 & 21
Va 13° 43' E
- Ascend over broken ground
- 20.00 Top of W End of sand ridge 90 ft high trending E & W.
- 28.00 Foot of sand ridge & enter rolling land
- 40.00 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ sec cor. Dug pits 18x18x12 ins. N & S of Cor. 5 1/2 ft distant and raised a mound of earth 2 ft 4 1/2 ft base over it. In N pit drove a cedar stake 2 ft long 2 ins square, 12 ins, in the ground marked $\frac{1}{4}$ S on W face.
- 80.00 Set a cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for cor to Secs 15, 16, 21 & 22. Dug pits 18x18x12 ins in each sec. 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high 5 ft base
Marked post T 31 R 32 S 15 on NE face
T 31 R 32 S 16 " NW "
T 31 R 32 S 21 " SW "
T 31 R 32 S 22 " SE "
- with 3 notches on S and 3 notches on E edge.
- Land rolling
Soil 3^d & 4th rate
Vegetation Bunch grass
-
- N 89° 50' E on a random line between sections 15 & 22
Va 13° 43' E.
- 40.00 Set temporary $\frac{1}{4}$ sec cor
- 80.24 Intersect N & S line 35 lbs N of

Subdivision of T. 31 N., R. 32 W.

- chains cor to secs 14 15 22 & 23
Thence I run N 89° 55' W on a true
line between secs 15 and 22 with
same va. over level land
- 3.00 Leave valley and enter low sand hills.
- 40.13 Deposited a charred stake 12 ins
in the ground for ¼ sec cor. Dug
pits 18x18x12 ins E & W of cor 5½ ft
distant and raised a mound of
earth 2 ft high 4½ ft base over it.
In E pit drove a cedar stake
2 ft long 2 ins square 12 ins in
the ground marked 45 on N face.
- 48.00 Enter valley ¼ mile or more long
trending SE & NW and extending about
7 chs south of this line
- 67.00 Leave valley and enter low sand hills
- 80.26 The cor to secs 15 16 21 & 22.
Land rolling
Soil 3^d rate
Vegetation Bunch grass
- June 17th 1889
Eto

N. 2° 56' E between secs 15 & 16
va 13° 43' E.

- over rolling ground
- 10.00 Enter valley trending NW & S.E.
- 28.20 Leave valley and enter broken land
- 40.00 Deposited a charred stake 12 ins
in the ground for ¼ sec cor. Dug
pits 18x18x12 N & S of cor 5½ ft distant
and raised a mound of earth 2 ft
high 4½ ft base over it.
In N pit drove cedar stake 2 ft long 2 ins square 12 ins in the ground marked 45 on N face
- 57.50 Top of sand ridge 100 ft high trending
E & W & descend
- 80.00 Set a cedar post 4 ft long 4
ins square with charred stake 12
ins in the ground for cor to
secs. 10 9 16 & 15. Marked
T 31 R 32 S 10 on NE face

Subdivision of T. 31 N., R. 32 W.

- chains. T 31 R 32 S 9 on NW face
T 31 R 32 S 16 " SW "
T 31 R 32 S 15 " SE "
- with 4 notches on S & 3 notches on E edges.
Dug pits 18x18x12 ins in each sec.
5½ ft distant and raised a mound
of earth around post 2½ ft high
5 ft base.
- Land generally broken
Soil 3^d rate
Vegetation Bunch grass
Eto

N. 89° 50' E on a random line
between secs. 10 & 15.
va 13° 43' E.

- 40.00 Set temporary ¼ sec cor.
- 79.94 Intersect N & S line 25 lks S of
cor to secs. 11, 10, 15 & 14.
Thence I run S. 89° 39' W on a true
line between secs 10 & 15 with
same va. over low sand hills
- 39.97 Deposited a charred stake 12 ins
in the ground for ¼ sec cor. Dug
pits 18x18x12 ins E & W of cor 5½ ft
distant and raised a mound
of earth 2 ft high 4½ ft base over it.
In E pit drove cedar stake 2 ft long 2 ins square 12 ins in the ground marked 45 on N face
- 79.94 The cor to secs 10 9 16 & 15.
Land rolling
Soil 3^d rate
Vegetation Bunch grass.
Eto

N. 2° 56' E between secs. 10 & 9
va 13° 43' E

- over low sand hills
- 40.00 Deposited a charred stake 12 ins
in the ground for ¼ sec cor. Dug
pits 18x18x12 ins N & S of cor 5½ ft
distant and raised a mound of
earth 2 ft high 4½ ft base over it.
In N pit drove a cedar stake
2 ft long 2 ins square. Marked

Subdivision of T. 31 N., R. 32 W.

chains $\frac{1}{4}$ 3 on W face
 80.00 Set a cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for cor to secs 3, 4, 9 & 10. Marked

T 31 R 32 S 3 on NE face
 T 31 R 32 S 4 .. NW ..
 T 31 R 32 S 9 .. SW ..
 T 31 R 32 S 10 .. SE ..

with 5 notches on S & 3 notches on E edges.
 dug pits 15x15x12 ins in each sec. 5 1/2 ft distant and raised a mound of earth 2 ft high 2 1/2 ft base around post.

Land rolling or broken
 Soil 3^d rate
 Vegetation Bunch grass.

N 89°50'E on a random line between secs. 3 & 10.
 va 13°43'E

40.00 Set temporary $\frac{1}{4}$ sec cor
 80.30 Intersect N & S line 18 ths N of cor to secs 2, 3, 10 & 11

Thence I run S. 89°58' W. on a true line between secs. 3 & 10. with same va. Over very broken ground along S face of a range of sand hills.

40.15 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ sec cor. Dug pits 15x15x12 ins E & W of cor. 5 1/2 ft distant and raised a mound of earth 2 ft high with 4 1/2 ft base over it. In E pit drove a cedar charred stake 2 ft long 2 ins square 12 ins in the ground marked $\frac{1}{4}$ 5 on N face.

80.30 The cor to secs 3, 4, 9 & 10
 Land very broken Soil 4th rate
 Vegetation Bunch grass

Subdivision of T. 31 N., R. 32 W.

chains N. 2°56'E on a random line between secs 3 & 4.
 va 13°43'E.

40.00 Set temporary $\frac{1}{4}$ sec cor
 73.60 Intersect N line of the township 28 ths W of cor to secs 3 & 4 on N boundary which a cedar post 4 ft long 4 ins square with charred stake set 12 ins in the ground and marked
 T 31 R 32 S 4 on SE face
 T 31 R 32 S 3 .. SW ..

with 3 notches on E & 3 notches on W edges. Also with pits ^(2 1/2 x 15 x 12 ins) SE & SW of post 5 1/2 ft distant and a mound of earth around post 2 1/2 ft high 5 ft base.

Thence I run S 33°09' W on a true line between secs 3 & 4 with same va. Over rolling land

33.60 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ sec cor. Dug pits 15x15x12 ins N & S of cor 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it. In N. pit drove a cedar stake 2 ft long 2 ins square 12 ins in the ground marked $\frac{1}{4}$ 3 on W face

70.00 Foot of sand ridge & ascend
 73.00 Top of sand ridge 120 ft high trending E & W.

73.60 The cor to secs 3, 4, 9 & 10.
 Land rolling except last 3 chains which is broken - Soil 3^d rate
 Vegetation Bunch grass
 June 18th 1869.

From the cor to secs 32 & 33 on South boundary of the township which is a cedar post 4 ft long 4 ins square with a charred stake

Subdivision of T. 31 N., R. 32 W.

chains set $2\frac{1}{2}$ ft in the ground and marked
 T 31 R 32 S 33 on NE face
 T 31 R 32 S 32 .. NW ..
 with 4 notches on E & 2 notches on W edges
 I run $N 2^{\circ} 56' E$ between Secs
 32 & 33.
 Va $13^{\circ} 43' E$.

Descend over very broken ground
 20.00 N ft of sand ridge & enter long narrow
 valley trending E & W
 26.50 Leave valley & ascend over very broken
 ground

40.00 Deposited a charred stake 12
 ins in the ground for $\frac{1}{4}$ sec cor.
 Dug pits $18 \times 18 \times 12$ ins N. & S. of cor
 $5\frac{1}{2}$ ft distant and raised a mound
 of earth 2 ft high $4\frac{1}{2}$ ft base over it.
 In N pit drove a cedar stake 2 ft
 long, 2 ins square, 12 ins. in the
 ground marked $\frac{1}{4}$ S on W. face.

47.00 Top of sand ridge 100 ft high
 trending E & W. and descends
 over badly broken ground

50.00 Set a Cedar post 4 ft long 4 ins
 square with charred stake 12 ins
 in the ground for cor to Secs
 28, 29, 32, & 33 Marked

T 31 R 32 S 28 on NE face

T 31 R 32 S 29 .. NW ..

T 31 R 32 S 32 .. SW ..

T 31 R 32 S 33 .. SE ..

with 1 notch on S & 4 notches on E edges
 Dug pits $18 \times 18 \times 12$ ins in each sec
 $5\frac{1}{2}$ ft distant and raised a mound
 of earth around post $2\frac{1}{2}$ ft high,
 5 ft base

Soand generally very broken

Soil 3° & 4^{th} rate

Vegetation Bunch grass
 E.P.O.

Subdivision of T. 31 N., R. 32 W.

chains $N 89^{\circ} 50' E$ on a random line
 between Secs. 28 & 33.
 Va $13^{\circ} 43' E$.

40.00 Set temporary $\frac{1}{4}$ sec cor
 79.90 Intersect N & S line 40 lbs S of cor.
 to Secs. 27, 28, 33 & 34
 Thence I run $S. 89^{\circ} 33' W$ on a true
 line between Secs 28 & 33 with same
 Va.

12.50 Enter long narrow valley trending
 NW & SE

39.95 Deposited a charred stake 12 ins
 in the ground for $\frac{1}{4}$ sec cor. Dug
 pits $18 \times 18 \times 12$ ins E & W of cor
 $5\frac{1}{2}$ ft distant and raised a mound of earth 2 ft
 high $4\frac{1}{2}$ ft base over it. In East
 pit drove a Cedar stake 2 ft
 long 2 ins square 12 ins in
 the ground marked $\frac{1}{4}$ S on N face.

40.00 Leave valley - which extends about 25°
 Chs NW from this point, and enter
 low sand hills

79.90 The cor to Secs 28, 29, 32 & 33.

Soand rolling - level in valley
 Soil 3° rate

Vegetation Bunch grass
 E.P.O.

$N 2^{\circ} 56' E$ between Secs 28 & 29
 Va $13^{\circ} 43' E$

Over low sand hills.

20.00 NW end of valley bears E about 16 chs.

40.00 Deposited a charred stake 12 ins
 in the ground for $\frac{1}{4}$ sec cor.
 Dug pits $18 \times 18 \times 12$ ins N & S of cor.
 $5\frac{1}{2}$ ft distant and raised a
 mound of earth 2 ft high $2\frac{1}{2}$ ft
 base over it. In N. pit drove
 a cedar stake 2 ft long 2 ins
 square marked $\frac{1}{4}$ S on W face.

80.00 Set a cedar post 4 ft long
 4 ins square with charred stake

Subdivision of T. 31 N., R. 32 W.

chains 12 ins in the ground for cor to secs
21, 20, 29 & 28. Marked

T 31 R 32 S 21 on NE face

T 31 R 32 S 20 " NW "

T 31 R 32 S 29 " SW "

T 31 R 32 S 28 " SE "

with 2 notches on S & 4 notches on E edges

Dug pits 18x18x12 ins in each
sec. 5 1/2 ft distant and raised
a mound of earth around post
2 1/2 ft high 5 ft base.

Land rolling

Soil 3rd rate

Vegetation Bunch grass

N 89° 58' E on a random line between
secs. 21 & 28

Va 13° 43' E.

40.00 Set temporary 1/4 sec cor

80.08 Intersect N & S line 10 lks N of cor
to secs. 22, 21, 28 & 27

Thence I run S. 89° 56' W on a true
line between secs 21 & 28 with
same va. over low sand hills

40.04 Deposited a charred stake 12 ins. in
the ground for 1/4 sec. cor.

Dug pits 18x18x12 ins E & W of cor
5 1/2 ft distant and raised a mound
of earth 2 ft high with 4 1/2 ft base
over it. In E. pit drove a cedar
stake 2 ft long 2 ins square 12 ins
in the ground marked 1/4 S on N. face.

80.08 The cor to secs 21, 20, 29 & 28

Land rolling

Soil 3rd rate

Vegetation Bunch grass

N 25° 6' E between secs 21 & 20

Va 13° 43' E.

over low sand hills

40.00 Deposited a charred stake 12 ins

Subdivision of T 31 N R 32 W.

chains in the ground for 1/4 sec cor.

Dug pits 18x18x12 ins N & S of cor
5 1/2 ft distant and raised a
mound of earth 2 ft high 4 1/2 ft
base over it. In N. pit drove
a cedar stake 2 ft long 2 ins
square 12 ins in the ground marked
1/4 S on W face.

51.90 Top of E end of sand ridge 130 ft
high trending E & W. & descend
over very broken ground.

80.00 Set a cedar post 4 ft long 4
ins square ^(with charred stake) 12 ins in the ground
for cor to secs. 16, 17, 20 & 21

Marked T 31 R 32 S 16 on NE face

T 31 R 32 S 17 " NW "

T 31 R 32 S 20 " SW "

T 31 R 32 S 21 " SE "

with 3 notches on S and 4 notches on
E edges. Dug pits 18x18x12 ins in
each sec 5 1/2 ft distant and
raised a mound of earth 2 1/2
ft high 5 ft base around post.

Land rolling on broken

Soil 3rd & 4th rate

Vegetation Bunch grass.

N 89° 58' E on a random line between
secs 16 & 21

Va 13° 43' E.

40.00 Set temporary 1/4 sec cor.

80.28 Intersect N & S line 24 lks N of
cor to secs. 15, 16, 21 & 22

Thence I run West on a true line
between secs 16 & 21 with same
va. over low sand hills

40.14 Deposited a charred stake 12 ins
in the ground for 1/4 sec cor

Dug pits 18x18x12 ins E & W of
cor 5 1/2 ft distant and raised
a mound of earth 2 ft high

Subdivision of T 31 N R 32 W

chains 4 1/2 ft base over it. In East pit
drive a Cedar stake 2 ft long 2 ins
square 12 ins in the ground marked
4 5 on N face.

80.25 The Car D Secs 16, 17 20 & 21
Land Rolling
Soil 3^d rate
Vegetation Bunch grass
E.P.O. June 19th 1889

N. 256° E between Secs 16 & 17
va 13° 43' E.
Over low sand hills

40.00 Deposited a charred stake 12 ins
in the ground for 1/4 sec car.
Dug pits 18x18x12 ins N & S of Car
5 1/2 ft distant and raised a mound
of earth 2 ft high 4 1/2 ft base over it.
In N. pit drove a Cedar stake 2 ft
long 2 ins square 12 ins in the ground
marked 4 5 on W face.
Leave ^{low} sand hills and ascend

46.50 Top of W end of Sand ridge 80 ft
high trending E & W & descend

55.20 Foot of sand ridge & ascend

64.90 Top of sand ridge 100 ft high trending
E & W & descend

80.00 Set a cedar post 4 ft long 4 ins
square with charred stake 12 ins
in the ground for Car D Secs. 9, 8
17 & 16. Marked
T 31 R 32 S 9 on NE face
T 31 R 32 S 8 .. NW ..
T 31 R 32 S 17 .. SW ..
T 31 R 32 S 16 .. SE ..
with 4 notches on S & 4 notches on E edges.
Dug pits 18x18x12 ins in each sec
5 1/2 ft distant and raised a mound
of earth around post 2 1/2 ft high,
5 ft base.
Land rolling & broken Soil 4th rate. Vegetation Bunch grass
E.P.O.

Subdivision of T. 31 N., R. 32 W.

chains N 89° 50' E on random line
between Secs. 9 & 16
va 13° 43' E

40.00 Set temporary 1/4 sec car

80.12 Intersect N & S line 18 lbs S of
Car D Secs. 10, 9, 16 & 15.
Thence I run S 89° 42' W on a
true line between Secs. 9 & 16 with
same va. Over very broken land

40.06 Deposited a charred stake 12 ins
in the ground for 1/4 sec car. Dug
pits 18x18x12 ins E & W of Car 5 1/2 ft
distant and raised a mound of
earth 2 ft high 4 1/2 ft base over it.
In East pit drove a Cedar stake
2 ft long 2 ins square 12 ins in
the ground marked 4 5 on N face.

43.00 Top of Sand ridge 120 ft high
trending NE & SW & descend

60.00 Enter low sand hills. E end of
Chamberlain valley bears North 2 chs. dist.

80.12 The Car D Secs 9, 8, 17 & 16.
Land Broken & rolling
Soil 3^d & 4th rate
Vegetation Bunch grass
E.P.O.

N. 256° E between Secs 9 & 8
va 13° 43' E.

1.00 Enter Chamberlain Valley trending E & W

40.00 Deposited a charred stake 12 ins
in the ground for 1/4 sec car. Dug
pits 18x18x12 ins N & S of car 5 1/2
ft distant and raised a mound
of earth 2 ft high with 4 1/2 ft base
over it. In N pit drove a cedar
stake 2 ft long 2 ins square 12 ins
in the ground marked 4 5 on W face.
East end of Chamberlain Swamp
bears S.W. 10 chs dist
Leave Chamberlain valley and enter
very broken sand hills & ascend.

Subdivision of T. 31 N., R. 32 W.

Chains
80.00

Set a cedar post 4 ft long 4 ins square with charred stakes 12 ins in the ground for cor to Secs 4 5 8 & 9 marked

T 31 R 32 S 4 on NE face

T 31 R 32 S 5 " NW "

T 31 R 32 S 8 " SW "

T 31 R 32 S 9 " SE "

with 5 notches on S & 4 notches on E edges
Dug pits 18x18x12 ins in each sec 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft. high. 5 ft base.

Land level in valley, the rest badly broken
Soil In valley 2nd rate bottom 4th rate
Vegetation, Buffalo grass & slough
grass in valley - Bunch grass on hills
etc.

N 89°50'E on a random line
between Secs. 4 & 9

Va 13°43'E

40.00 Set temporary 1/4 sec cor.

80.40 Intersect N & S line 30 lbs S of
cor to Secs 3, 4, 9 & 10

Thence I run S 89°37'W on a true
line between Secs. 4 & 9 with
same va. Over very broken
ground along S slope of a high
sand ridge.

40.20 Deposited a charred stake 12 ins
in the ground for 1/4 sec cor. Dug
pits 18x18x12 ins. E & W of cor 5 1/2 ft
distant and raised a mound of
earth 2 ft high 4 1/2 ft base over it.
In E pit drove a cedar stake
2 ft long, 2 ins. square 12 ins in the
ground marked 45 on N face

80.40 The cor to Secs 4, 5, 8 & 9

Land very broken Soil 4th rate
Vegetation Bunch grass
etc.

Subdivision of T. 31 N., R. 32 W.

Chains N 2°56'E on a random line between Secs ^{4 & 5}
Va 13°43'E

40.00 Set temporary 1/4 sec cor.

76.20 Intersect N boundary of township
47 lbs W of cor to Secs 4 & 5 on N boundary
which is a cedar post with charred
stake set 2 1/2 ft in the ground &
marked T 31 R 32 S 4 on SE face

T 31 R 32 S 5 " SW "

with 4 notches on E & 2 notches on W edges.
Thence I run S 3°17'W on a true
line between Secs. 4 & 5 with same
va - Over very broken land

34.00 Top of sand ridge 80 ft high bounding
N.W. & S.E. and descend to low sand hills

36.20 Deposited a charred stake 12 ins
in the ground for 1/4 sec cor. Dug pits
18x18x12 ins N & S of cor 5 1/2 ft distant
and raised a mound of earth 2
ft high 4 1/2 ft base over it.

In N pit drove a cedar stake
2 ft long 2 ins square 12 ins in
the ground marked 45 on W face

58.00 Leave low sand hills and ascend
over very broken land to

73.80 Top of sand ridge 100 ft high
trending E & W & descend to

76.20 The cor to Secs 4, 5, 8 & 9.

Land very broken
Soil 4th rate

Vegetation Bunch grass.

From 10 o'clock A.M. till after 4
P.M. today the needle was violently
agitated, - quivering through an arc
of 8 or 10 degrees. As it would often
move while the transit was standing
still the tremble was evidently caused
by atmospheric disturbance instead
of local attraction - though the
sky was clear, except a slight
haze - with not a cloud in sight

Subdivision of T. 31 N., R. 32 W.

chains and very little wind blowing.
 Sun after 4 P.M. the trouble disappeared
 and when we quit work about 6 P.M.
 at the cor to secs 29, 30, 31 & 32, the needle
 showed a va of $13^{\circ}43'E$ though it had
 varied 4 or 5 degrees from that both times
 we were at that corner before during
 the afternoon June 20th 1889
 E & C.

From the cor to Secs. 31 & 32 on the
 South boundary of the township which
 is a cedar post 4 ft long 4 ins square
 with charred stake set 2 1/2 feet in
 the ground and marked

T 31 R 32 S 32 on NE face

T 31 R 32 S 31 " NW "

with 5 notches on E & 1 notch on W edges
 I run N $25^{\circ}6'$ between Secs 31 & 32
 va $13^{\circ}43'E$.

Descending over very broken ground
 29.40 Enter narrow valley trending E & W
 40.00 Deposited a charred stake 12 ins
 in the ground for 1/4 sec cor. Day
 pits $18 \times 18 \times 12$ ins E & W of cor. 5/8 ft distant and
 raised a mound of earth 2 ft high
 4 1/2 ft base over it. In N pit
 drove a cedar stake 2 ft long 2
 ins square 12 ins in the ground
 marked 29 S on W face.

Leave valley and ascend over
 very broken ground.

66.60 Top of sand ridge 130 ft high trending S 22 W
 & descend over broken land

80.00 Set a cedar post 4 ft long 4 ins
 square with charred stake 12 ins
 in the ground for cor to secs 29, 30, 31 & 32
 marked T 31 R 32 S 29 on NE face

T 31 R 32 S 30 " NW "

T 31 R 32 S 31 " SW "

T 31 R 32 S 32 " SE "

Subdivision of T. 31 N., R. 32 W.

chains with 1 notch on E & 5 notches on E edges
 day pits $18 \times 18 \times 12$ in each sec. 5/8 ft
 distant and raised a mound of
 earth around post 2 1/2 ft high 5 ft ^{base at} base
 Land very broken
 Soil 4th rate
 Vegetation Bunch grass
 E & C

N $89^{\circ}50'E$ on a random line
 between Secs 29 & 32
 va $13^{\circ}43'E$.

40.00 Set temporary 1/4 sec cor.

79.76 Intersect N & S line at cor to secs ^{which 79.76}
 28, 29, 32 & 33 ^{or 79.96}

Thence I run S $89^{\circ}50'W$ on a true
 line between Secs. 29 & 32 with same
 va. Over low sand hills

39.98 Deposited a charred stake 12 ins
 in the ground for 1/4 sec cor. Day
 pits $18 \times 18 \times 12$ ins E & W of cor. 5/8 ft
 distant and raised a mound of
 earth 2 ft high 4 1/2 ft base over it.

In E pit drove a cedar stake 2
 ft long 2 ins square 12 ins in
 the ground marked 29 S on N. face.

77.96 the cor to secs 29, 30, 31 & 32

Land rolling

Soil 3rd rate

Vegetation bunch grass
 E & C.

S $89^{\circ}50'W$ on a random line
 between Secs. 30 & 31.
 va $13^{\circ}43'E$.

40.00 Set temporary 1/4 sec cor.

79.20 Intersect W boundary of township 12 S
 N of cor to secs 30, 25, 36 & 31 which
 is a cedar post 4 ft long 4 ins square
 with charred stake set 12 ins in the
 ground & marked T 31 R 32 S 30 on NE face

T 31 R 33 S 25 " NW "

T 31 R 33 S 36 " SW "

Subdivision of T. 31 N., R. 32 W.

- chains T 31 R 32 S 31 on SE face
with 1 notch on S & 5 notches on N edges.
Thence I run N 89° 45' E on a true
line between Secs 30 & 31 with same
va. ascend over broken ground along
South side of a sand ridge
- 39.20 Deposited a charred stake 12 ins in
the ground for $\frac{1}{4}$ sec cor. Dug pits
18x18x12 ins. E & W of cor 5 1/2 ft distant
and raised a mound of earth 2 ft
high 4 1/2 ft base over it. In E pit
drove a cedar stake 2 ft long 2 ins
square 12 ins in the ground marked
4 5 on N face.
- 39.40 Top of sand ridge 125 ft high trending
NW & SE & descend over very broken ground.
- 79.20 The cor to Secs 29, 30, 31 & 32
Land very broken. Soil 4th rate, vegetation bunch grass
E 20
-
- N 2° 56' E between Secs 29 & 30
va 13° 43' E.
over low rolling sand hills.
- 40.00 Deposited a charred stake 12 ins in
the ground for $\frac{1}{4}$ sec cor. Dug pits
18x18x12 ins N & S of cor 5 1/2 ft distant
and raised a mound of earth 2 ft
high 4 1/2 ft base over it. In N pit
drove a cedar stake 2 ft long 2 ins
square 12 ins in the ground marked
4 5 on W face.
- 61.00 Enter valley about 60 chs long trending
NW & SE.
- 80.00 Set a cedar post 4 ft long 4 ins
square with charred stake 12 ins
in the ground for cor to Secs.
20 19 30 & 29. Marked
T 31 R 32 S 20 on NE face
T 31 R 32 S 19 " NW "
T 31 R 32 S 30 " SW "
T 30 R 32 S 29 " SE "
with 2 notches on S & 5 notches on E edges.
Dug pits 18x18x12 ins in each Sec

Subdivision of T. 31 N., R. 32 W.

- chains 5 1/2 ft distant and raised a mound
of earth 2 1/2 ft high 5 ft base around post.
This corner is about the center of the
valley.
Land in valley level - upland rolling
Soil 3rd rate.
Vegetation bunch grass.
E 20
-
- N 89° 50' E on a random line
between Secs. 20 & 29
va 13° 43' E.
- 40.00 Set temporary $\frac{1}{4}$ sec cor
79.86 Intersect N & S. line 25 lbs S of
cor to Secs 28, 20, 29 & 28.
Thence I run S. 89° 39' W on a true
line between Secs 20 & 29 with
same va. over low broken sand hills
- 39.93 Deposited a charred stake 12 ins
in the ground for $\frac{1}{4}$ sec cor. Dug
pits 18x18x12 ins E & W of cor 5 1/2 ft
distant and raised a mound
of earth 2 ft high 4 1/2 ft base
over it. In E pit drove a cedar
stake 2 ft long 2 ins square 12
ins in the ground marked 4 5 on N face.
- 60.00 Enter valley trending NW & SE.
79.86 The cor to Secs. 20 19 30 & 29.
Land rolling on broken. Soil in valley
Soil 3rd rate
Vegetation Bunch grass
E 20
-
- S 89° 50' W on a random line
between Secs 19 & 30
va 13° 43' E.
- 40.00 Set temporary $\frac{1}{4}$ sec cor
82.33 Intersect W boundary of township
24 lbs S. of cor to Secs. 19, 24, 25 & 30
which is a cedar post 4 ft long 4 ins.
square with charred stake set 12 ins.
in the ground and marked
T 31 R 32 S 19 on NE face

Subdivision of T. 31 N., R. 32 W.

chains T 31 R 33 S 24 on NW face
 T 31 R 33 S 25 " SW "
 T 31 R 32 S 30 " SE "

with 2 notches on S & 4 notches on N edges
 and pits 18x18x12 ins in each sec
 5 1/2 ft distant with a mound of
 earth 2 1/2 ft high 5 ft base around
 post.

Thence I run East on a true
 line between secs 19 & 20 with
 same va. over rolling land

42.33 Deposited a charred stake 12 ins
 in the ground for 1/4 sec cor. Dry pits
 18x18x12 ins E & W of cor 5 1/2 ft distant
 and raised a mound of earth 2 ft
 high 4 1/2 ft base over it. In E pit
 drove a cedar stake 2 ft long 2 ins
 square 12 ins in the ground marked
 1/4 S on N face.

62.00 The center valley trending NW & SE

82.33 The cor. to secs. 20 19 30 & 29
 Land rolling In valley level
 Soil 3rd rate
 Vegetation Bunch grass
 S&C

N 2° 56' E between secs 19 & 20
 va 13° 43' E.

18.30 Low valley & enter low sand hills

40.00 Deposited a charred stake 12 ins
 in the ground for 1/4 sec cor. Dry pits
 18x18x12 N & S of cor 5 1/2 ft distant and
 raised a mound of earth 2 ft
 high 4 1/2 ft base over it. In N pit
 drove a cedar stake 2 ft long 2 ins
 square 12 ins in the ground marked
 1/4 S on W face.

56.20 Leave low sand hills and ascend
 over very broken ground

66.00 Top of sand ridge 75 ft high trending
 SE & NW. & descend over very broken ground
 80.00 Set a cedar post 4 ft long 4 ins

Subdivision of T. 31 N., R. 32 W.

chains square with charred stake 12 ins
 in the ground for cor to secs
 17, 18, 19 & 20 marked

T 31 R 32 S 17 on NE face

T 31 R 32 S 18 " NW "

T 31 R 32 S 19 " SW "

T 31 R 32 S 20 " SE "

with 3 notches on S & 5 notches on E edges
 Dry pits 18x18x12 ins in each sec.
 5 1/2 ft distant and raised a mound
 of earth 2 1/2 ft high 5 ft base around
 post.

Land rolling & Broken
 Soil 3rd & 4th rate

Vegetation Bunch grass.
 S&C

N 89° 50' E on random line between
 Secs 17 & 20

va 13° 43' E.

40.00 Set temporary 1/4 sec cor.

80.06 Intersect N & S line 33 lbs S of cor
 to secs. 16 17, 20 & 21

Thence I run S 89° 36' W on a true
 line between secs 17 & 20 with same
 va. over low sand hills.

40.03 Deposited a charred stake 12 ins
 in the ground for 1/4 sec cor. Dry
 pits 18x18x12 ins E & W of cor 5 1/2 ft
 distant and raised a mound of
 earth 2 ft high 4 1/2 ft base over it.
 In E pit drove a cedar stake 2 ft long 2 ins
 square 12 ins in the ground marked
 1/4 S on N face.

80.06 The cor. to secs. 17, 18, 19 & 20.
 Land rolling
 Soil 3rd rate
 Vegetation Bunch grass.
 S&C

S 89° 50' W on a random line
 between secs 18 & 19

va 13° 43' E.

40.00 Set temporary 1/4 sec cor.

86.10 Intersect W boundary of township
 30 lbs N of cor to Secs 18 13, 24 & 19.

Subdivision of T. 31 N., R. 32 W.

chain which a Cedar post 4 ft long 4 ins square with charred stakes set 12 ins in the ground and marked

T 31 R 32 S 18 on NE face

T 31 R 33 S 13 " NW "

T 31 R 33 S 24 " SW "

T 31 R 32 S 19 " SE "

with 3 notches on S & 3 notches on N edges and pits 18x18x12 ins in each sec 5 1/2 ft distant with mound of earth around post 2 1/2 ft high 5 ft base.

Thence I run N 89° 39' E on a true line between Secs 18 & 19 with same va. over rolling & broken ground

46.10 Deposited a charred stake 12 ins in the ground for 1/4 sec cor. Dug pits 18x18x12 ins E & W of cor. 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it.

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

86.10 The cor to Secs. 17, 18, 19 & 20

Land rolling or broken

Soil 3rd rate

Vegetation bunch grass

June 21 1889

N 2° 56' E between Secs. 17 & 18

va 13° 43' E.

Over rolling sand hills

18.00 Enter valley trending E & W

36.50 Leave valley which extends about 40 chs E & 20 chs W of this line. Enter

low sand hills

40.00 Deposited a charred stake 12 ins in the ground for 1/4 sec cor. Dug pits 18x18x12 ins N & S of cor. 5 1/2 ft distant and raised a mound of earth 2 ft high 4 1/2 ft base over it. In N pit drove

Subdivision of T. 31 N., R. 32 W.

chains a cedar stake 2 ft long 2 ins square 12 ins in the ground marked 1/4 S on W face

60.00 Leave low sand hills and ascend over very broken land

71.00 Top of sand ridge 140 ft high trending E & W. & descend

80.00 Set a Cedar post 4 ft long 4 ins square with charred stakes for cor to Secs. 8, 7, 18 & 17. marked

T 31 R 32 S 8 on NE face

T 31 R 32 S 7 " NW "

T 31 R 32 S 18 " SW "

T 31 R 32 S 17 " SE "

with 4 notches on S & 5 notches on E edges.

Dug pits 18x18x12 ins in each sec. 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high with 5 ft base.

Land rolling or broken - level in valley

Soil 3rd rate

Vegetation bunch grass, etc

N 89° 50' E on a random line between Secs. 8 & 17

va 13° 43' E.

40.00 Set temporary 1/4 sec cor

80.20 Intersect N & S line 18 lbs N of cor to Secs. 9, 8, 17 & 16.

Thence I run S. 89° 58' W on a true line between Secs 8 & 17 with same va. over very broken ground

40.10 Deposited a charred stake 12 ins in the ground for 1/4 sec cor. Dug pits 18x18x12 ins E & W of cor. 5 1/2 ft distant & raised a mound of earth 2 ft high 4 1/2 ft base over it.

In E pit drove a cedar stake 2 ft long 2 ins square marked 1/4 S on N face.

80.20 The cor to Secs 8, 7, 18 & 17.

Subdivision of T. 31 N., R. 32 W.

- chains Land very broken
Soil 3rd & 4th rate
Vegetation Bunch grass
816
-
- S 89°50' W on a random line
between secs. 7 & 18
va 13°43'
- 40.00 Set temporary ¼ sec cor
90.05 Intersect W boundary of township 42 lbs
S of cor D secs 7, 12, 13 & 18 which is
thence I run S 89°54' E
a cedar post 4 ft long 4 ins square
with charred stake set 12 ins in the
ground and marked
T 31 R 32 S 7 on NE face
T 31 R 33 S 12 " NW "
T 31 R 33 S 13 " SW "
T 31 R 32 S 18 " SE "
- with 4 notches on S & 2 notches on N edges
and pits 18x18x12 in each sec 5 ½ ft
distant with mound of earth around
post 2 ½ ft high, 5 ft base.
Thence I run S 89°54' E on a true
line between secs 7 & 18 with same
va.
- 10.00 Top of sand ridge 100 ft high and
descend along N slope of same over
very broken ground.
- 50.05 Deposited a charred stake 12 ins in
the ground for ¼ sec cor. dug pits
E & W of cor 5 ½ ft distant and
raised a mound of earth 2 ft
high 3 ½ ft base over it. 3 ft down
corner of pits 4 ins square marked ¼ sec on N face
The cor D secs 8, 9, 16, & 17.
- 90.05 Land very broken
Soil 4th rate
Vegetation Bunch grass
816
-
- N 2°56' E between secs 7 & 8
va 13°43' E
Descend over broken ground

Subdivision of T. 31 N., R. 32 W.

- chains
20.00 Enter Chamberlain Valley - trending E & W
34.00 " Chamberlain Swamp trending E & W
40.00 Set a cedar post 8 ft long 4 ins
square with charred stake 3 ft in
the ground for ¼ sec cor. marked
¼ S on W face. Mound a pits impracticable
- 47.50 Leave swamp
60.00 Chamberlain's house bears West 15
chs distant Tolare Valley and
ascend over very broken ground
- 80.00 Top of sand ridge 150 ft high
trending E & W
Set a cedar post 4 ft long
4 ins square with charred stake
12 ins in the ground for cor D
secs 5, 6, 7 & 8 marked
T 31 R 32 S 5 on NE face
T 31 R 32 S 6 " NW "
T 31 R 32 S 7 " SW "
T 31 R 32 S 8 " SE "
- with 5 notches on S & 5 notches on E edges
Dug pits 18x18x12 ins in each sec
5 ½ ft distant and raised a mound
of earth around post 2 ½ ft high
5 ft base.
Land very broken except valley which
is level - Soil 4th rate on hills
2nd rate in valley.
Vegetation Bunch grass on hills
Buffalo & sleight grass in valley.
816
-
- N 89°50' E on a random line
between secs. 5 & 8
va 13°43' E
- 40.00 Set temporary ¼ sec cor.
80.29 Intersect N & S line 35 lbs N of
cor D secs. 4, 5, 8 & 9.
Thence I run N 89°55' W on a true
line between secs. 5 & 8 with
same va. over very broken ground
along S slope of a high sand ridge
- 40.12 Deposited a charred stake 12 ins

Subdivision of T. 31 N., R. 32 W.

- chains in the ground for $\frac{1}{4}$ sec cor. Dry pits $18 \times 18 \times 12$ ins E & W of cor $5\frac{1}{2}$ ft distant and raised a mound of earth 2 ft high $4\frac{1}{2}$ ft base over it. In E pit drove a cedar stake 2 ft long 2 ins square marked $\frac{1}{4}$ S on ^N face.
- 42.00 Top of sand ridge 140 ft high thence along summit of same
- 80.24 The cor to secs 5, 6, 7 & 8
Soil very broken
Soil 4^{th} rate
Vegetation Bunch grass.

S $89^{\circ}50'$ W on a random line between sections 6 & 7 Va. $15^{\circ}03'$

- 40.00 Set temporary $\frac{1}{4}$ sec cor
- 94.20 Intersect W boundary of township at cor to secs 6, 1, 12 & 7, which is a cedar post 4 ft long 4 ins square with charred stake set 12 ins in the ground and marked
- T 31 R 32 S 6 on NE face
T 31 R 33 S 1 " NW "
T 31 R 33 S 12 " SW "
T 31 R 32 S 7 " SE "

with 5 notches on S & 1 notch on N edges and pits $18 \times 18 \times 12$ ins in each sec $5\frac{1}{2}$ ft distant, with mound of earth around post 2 ft high 5 ft base.

Thence I run N $89^{\circ}50'$ E on a true line between secs 6 & 7 with same va. over very broken ground along S slope of a high sand ridge

- 54.20 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ sec cor. Dry pits $18 \times 18 \times 12$ ins E & W of cor $5\frac{1}{2}$ ft distant and raised a mound of earth 2 ft high $4\frac{1}{2}$ ft base over it. In E pit drove a cedar stake 2 ft long 2 ins square 12 ins in the ground marked $\frac{1}{4}$ S on N face.

Subdivision of T. 31 N., R. 32 W.

- chains
- 66.00 Top of sand ridge 150 ft high and along summit of same - D
- 94.20 The cor to secs 5, 6, 7 & 8
Soil very broken
Soil 4^{th} rate
Vegetation Bunch grass

N $25^{\circ}6'$ E on a random line between secs 5 & 6
Va $13^{\circ}43'8''$

- 40.00 Set temporary $\frac{1}{4}$ sec corner
- 78.15 Intersect N boundary of township 49 lbs W of cor to secs 5 & 6 on N boundary which is a cedar post 4 ft long 4 ins square with charred stake set 12 ins in the ground & marked
- T 31 R 32 S 5 on SE face
T 31 R 32 S 6 " SW "

with 5 notches on E & 1 notch on W edges. and pits $24 \times 18 \times 12$ SE & SW of cor $5\frac{1}{2}$ ft distant with a mound of earth around post 2 ft high 5 ft base.

Thence I run S $3^{\circ}17'$ W on a true line between secs. 5 & 6 with same va. over level ground.

- 15.00 Leave valley & enter low sand hills
- 38.15 Deposited a charred stake 12 ins in the ground for $\frac{1}{4}$ sec cor. Dry pits $18 \times 18 \times 12$ ins N & S of cor $5\frac{1}{2}$ ft distant and raised a mound of earth 2 ft high, $4\frac{1}{2}$ ft base over it. In N pit drove a cedar stake 2 ft long 2 ins square 12 ins in the ground marked $\frac{1}{4}$ S on W face. Ascend and at

- 42.00 Top of sand ridge 125 ft high trending E & W thence over very broken ground with high & rough sand hills blow into cord basins from 50 to 75 ft deep all around
- 78.15 The cor to secs 5, 6, 7 & 8

Subdivision of T. 31 N., R. 32 W.

chain Leaned very broken
 Soil 32 4th rate
 vegetation Bunch grass
 Survey Completed June 22, 1889
 E & C.

Total length of Subdivision lines 60 miles cks 55th
 E & C.

Supplemental notes.

I tried twice to get an observation on Polaris near the East line of the township but failed both times on account of clouds so I have but 2 observations. June 1st in Sec 7, and June 11th about 10 cks South of the S.E. cor of Sec 31. Each of these observations gave a mean va of $13^{\circ}45' E$ the range being from $13^{\circ}48'$ at 7 A.M. to $13^{\circ}38'$ at 1 P.M. as noted every hour during the day with the the transit standing on the 1st line on Sunday June 2nd.

My transit was tested on one of these lines every morning before going to work and my chain was also tested every morning and constantly kept to the length of 66.06 ft. Finding that there was no timber here I bought 50 red cedar fence posts 8 ft long at the R.R. and had them hauled out & sawed in two for corner posts. The marked cedar stakes were also made from these - The Chained stakes were made partly from these but mostly from Hackberry found growing on Snake river just S of Sec 31. The letters and figures on posts and stakes were cut with a surveyors marking iron and marked over with red chalk.

E & C.

Subdivision of T 31 N R 32 W

General Description

This township consists of rough sand hills and irregular ranges with many beautiful little "valleys" scattered among them.

These "valleys" are entirely surrounded by hills, though there is generally a pass over low hills some where into every valley.

The N.W. slopes of nearly all the high hills are bare near the top forming what are called "blow-outs" or basins of loose sand with a high rim on the S.E. and a low rim on the N.W. sides - When the wind flows in the right direction the sand in these "blow-outs" gets in motion like a great whirlpool and occasionally great clouds of it will be thrown out over the adjacent land - Scattered through the hills are large circular basins from 50 to 100 ft deep - with the width from rim to rim generally less than 3 times the depth and the rim the same height all the way around. The sides of these basins are covered with grass.

The soil even in the valleys is too sandy for profitable cultivation.

There is not a stick of timber of any kind growing in this township and no sign of rock or minerals could be discovered.

The only water is a slough in Secs 7 & 8 but I think water can be found at no great depth by digging in any of the valleys.

There is one settler N.H.

Subdivision of T. 31 N., R. 32 W.

Chamberlain - in sec 7 and he has a field of about 20 acres fenced in the SW 1/4 of this sec. and planted with corn and potatoes - He has a fine herd of horses and cattle which have wintered well here without hay or grain.

There is a little hay ground around the W. end of the slough in sec 7, but no other hay ground in this township.

I think most of the valleys will be taken up by homesteaders in the near future.

Joseph D Patterson
U. S. Surveyor.
Examined & Compared
J.D.P.

List of Names.

A list of the names of the individuals employed by Joseph D Patterson, 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 Subdivision lines of Township 31 North Range 32 West of the 6th Principal Meridian in Nebraska

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

| | |
|---------------------|----------|
| Charles S Patterson | Chairman |
| Charles King | Chairman |
| Clarence Cutcomb | axeman |
| Julius Fisher | axeman |
| Henry Peters | blayman |

Final Oath of Assistants:

We hereby certify that we assisted Joseph D Patterson, U. S. Deputy Surveyor, in surveying all those parts or portions of the Subdivision lines of Township No 31 North Range No 32 West of the 6th Principal

Meridian, in Nebraska, 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 Commissioner of the General Land Office.

Charles S. Patterson
Chas. King
Clarence Cutcomb
Julius Fisher
Henry Peters.

Subscribed and sworn to before me this 24th day of June, 1887.



Valentine Menzel J. P.
in & for Chery Co. Neb.

Final Oath of U. S. Deputy Surveyor.

I, Joseph D. Patterson, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the General Land Office, bearing date of the _____ day of _____, 1889, 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 Said Commission, the surveying manual, and the laws of the United States, surveyed all those parts or portions of _____

Subdivision lines of Township No 31 North Range No 32 West of the Sixth

Principal Meridian, in 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 Said Commission 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.

Subscribed and sworn to before me this 12th day of July, 1889.

Joseph D. Patterson
U. S. Deputy Surveyor.

Louis Lesieur
Notary Public



Approval.

Office of the U. S. Surveyor General, _____, 1889.

The foregoing field notes of the survey of _____

_____ executed by _____ under his Contract No. _____, dated _____, 1889, 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.

Joseph D. Patterson

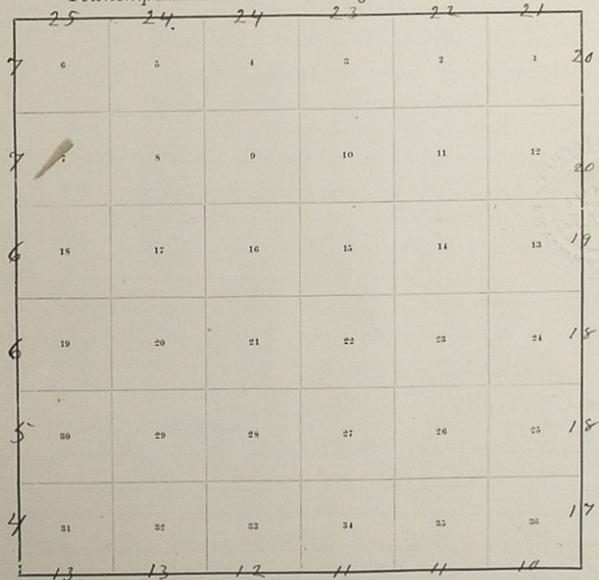
Department of the Interior,
General Land Office,
Washington, D. C., December 6th 1889.

The foregoing field notes of the survey of the subdivisional lines of township 31 north, range 32 west of the 6th Principal Meridian of Nebraska, as executed by United States Surveyor, J. D. Patterson, under his special contract dated April 8, 1889 and special instructions dated May 21, 1889, having been examined in this office, the said notes and the surveys they describe are hereby approved.

Francis A. Croff
Commissioner, and ex officio
Surveyor General of Nebraska

INDEX DIAGRAM.

Township 31 N, Range 32 W



Meanders Page.....



Preliminary Oaths of Assistants.

We, Charles G. Patterson and Charles King

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 or retracement of the North South East & West boundaries of T. 31 N. R. 32 W. of the 6th Principal Meridian in Nebraska

Charles G. Patterson, Chainman.

Charles King, Chainman.

, Chainman.

, Chainman.

Subscribed and sworn to before me this 29th day of May, 1889.

W. D. Salistbury
Notary Public in & for S. D. Co. Neb.

We, Clarence Cutcomb and Julius Fisher

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 or retracement of the North South East and West boundaries of T. 31 N. R. 32 W. of the 6th Principal Meridian in Nebraska

Subscribed and sworn to before me this 1st day of June, 1889.

A. D. Cole
Notary Public in and for
Cherry County, Nebraska



Exteriors of T. 31 N. R. 32 W. West line.

chains

Resurvey of the exterior boundaries of
T. 31 N. R. 32 W. of the 6th P.M. in Nebraska

At my camp on Sec. 7 T. 31 N. R. 32 W. on the night of June 1st 1889 I took an observation on the star Polaris and drove pickets on the line thus established

Survey commenced June 3rd 1889 with a Burtley Light Mountain transit with a 4 inch needle, Magnetic Variation plate. Two verniers to limb and vertical arc all reading to single minutes with telescope magnifying to 20 diameters in good order and perfect adjustment as shown by the usual tests.

Before commencing this survey I test my instrument on the line established June 1st and find it correct and the variation to be 13° 43' E.

From the corner to Townships 31 & 32 Ranges 32 & 33 which is a large mound with pits N. S. & W. and 6 ft. dist. from center of mound. There was also a Hackberry post lying by the mound with 6 notches on one corner and T. 32 N. S. 31 on one face the other three corners and faces were so badly decayed that no marks were legible on them.

Thence I run South on a random line along W. boundary of T. 31 R. 32
v. a. 13° 43' E.

39.98 To point 8 lbs. E. of $\frac{1}{4}$ sec. cor. between
secs 6 & 7. which is a mound with pits
E. & W. 5 1/2 ft. distant from center of mound
and decayed stake lying by mound with
no legible marks on it.
The return course is therefore N. 7' E.
Continuing South on same transit line

79.98 Found decayed post lying about 18 lbs

Extremes of T. 31 N. R. 32 W. West line
 Random

- Chains west of my line with no legible marks on it and no mound or pits to show just where it belonged. All being obliterated by drifting sand.
- 120.02 To point 29 lks East of $\frac{1}{4}$ sec. cor. between sections 7 & 12 which is a mound with pits on E & W. $5\frac{1}{2}$ ft from center of mound in good state of preservation also decayed Hackberry post lying by mound with $\frac{1}{4}$ S cut on one face of it.
The return course is therefore N. 7° E. and the proportionate distance 40.02 ch.
- Continuing South on same transit line
- 160.02 Found decayed Hackberry stake lying about 30 lks W of my line with no legible marks except S. 18 on one face, and no mound or pits to show where it had stood. All having been obliterated by drifting sand.
- 200.02 Found decayed Hackberry post lying about 40 lks west of my line with no legible marks on it and no mound or pits to show where it had stood.
- 240.02 Found decayed Hackberry stake lying about 50 lks W of my line with no marks legible and no mound or pits visible.
- 279.98 To point 56 lks East of $\frac{1}{4}$ sec. cor. between secs 19 & 24 which is a mound with pits E & W $5\frac{1}{2}$ ft dist. from center of mound and decayed Hackberry stake lying by mound with " $\frac{1}{4}$ S" on one face.
The return course is therefore N. 7° E. and the proportionate distance 37.99 ch.
- 319.98 Found decayed Hackberry post lying about 60 lks West of my line with no legible marks on it and no mound or pits visible.
- 359.98 Found decayed Hackberry post lying about 75 lks W. of my line with $\frac{1}{4}$ S on one face - no mound or pits visible.
- 400.04 To point 80 lks East of cor to secs 30.31, 25 & 36 which is a mound with pits N. E., N. W., S. W., & S. E. $5\frac{1}{2}$ ft dist from

 Extremes of T. 31 N. R. 32 W. West line
 Random

- Chains center of mound also a decayed Hackberry post lying on mound with no legible marks on it except S. 30 on one face.
The return course is therefore N. 7° E. and the proportionate distance 40.02 chains.
- 440.04 To point 55 lks East of $\frac{1}{4}$ cor. between secs 31 & 36 which is a mound with pits E & W. $5\frac{1}{2}$ ft from center of mound and decayed Hackberry stake lying by mound with $\frac{1}{4}$ S cut on one face.
The return course is therefore N. 21° W. and distance 40.00 ch.
- 480.03 To point 31 lks East of cor to secs 30.31 & 32.33 which is a large mound with pits N. S. E & W. 6 ft from center of mound and decayed Hackberry post lying on mound with 6 notches on one corner and T. 30 N. S. on one face - no other marks legible.

 June 3^d 1889.

Considering the nature of the ground the original chaining on this line has been excellent and the alignment has also been good except that there is a bend to the East of about 28' at the NW cor. of Sec 31 - It also appears that the general course of this West line is N. 2° E. and its length 480.03 ch. - I think the notes of the retracement of this line sent for my guidance are not reliable and not having the notes of the original survey I have no means of telling how they agree with the facts as shown above. I shall therefore remove the corners found and replace the missing ones on a straight line between the nearest corners standing - at their proportionate distances placing pits for $\frac{1}{4}$ sec corners E & W of the to agree with old $\frac{1}{4}$ sec corners found on this line.

Exteriors of T 31 N R 32 W West line
True

chains From the corner to tps. 30 & 31 N. rgs.
32 & 33 W. which is a mound 2 1/2 ft
high with 8 ft base and pits 24 x 24 x 12
in N. S. E & W of center of mound & 6 ft distant
located in a little hollow among the foot hills
about 15 chs N. of Snake River and which I
have renewed by setting a cedar post
4 1/2 ft. long & 4 ins. square with charred stake
2 1/2 ft in the ground in center of mound
marked T. 31 N. R. 32 W. S. 31 on N.E. face
T. 31 N. R. 33 W. S. 36 " N.W. "
T. 30 N. R. 33 W. S. 1 " S.W. "
T. 30 N. R. 32 W. S. 6 " S.E. "
with 6 notches on each edge.
I run

N. 21' W on true W. boundary of Sec 31
Va. 13° 43' E.

Ascend over very broken ground
25.00 Top of range of sand hills 150 ft high trending E & W
and descend over very broken ground.
39.99 1/4 sec. cor. between 31 & 36 which I renew
by setting cedar post 4 ft long 4 ins. square
with charred stake 2 ft deep in center
of old mound, and digging out old pits
5 1/2 ft E & W of post to 18 x 18 x 12 ins.
and raising old mound to height of
two ft with 5 ft. base.
42.50 N. foot of sand ridge. Enter rolling land
trending E. & W.
79.00 E. foot of sand ridge and ascend
79.99 The cor. to Secs. 30, 31, 25 & 36 which I
renew by setting a cedar post 4 ft long 4 ins
square with charred stake 18 ins. deep in center
of old mound marked

T. 31 N. R. 32 S. 30 on N.E. face
T. 31 R. 33 S. 25 " N.W. "
T. 31 R. 33 S. 36 " S.W. "
T. 31 R. 32 S. 31 " S.E. "

with 1 notch on S. and 5 notches on N. edges
also dug out old pits 5 1/2 ft N.E.

Exteriors of T. 31 N. R. 32 W. West boundary.
True

chains NW SW & SE of post to 18 x 18 x 12 ins.
and raised old mound around post
to height of 2 1/2 ft. with 5 ft base.
Land very broken
Soil 3^d and 4th rate
Vegetation Bunch grass etc

N. 7' E on W. boundary of Sec. 30
Va. 13° 43' E.

18.00 Summit of range of sand hills 175 ft high,
trending E. and W. thence over very broken
ground generally descending
40.02 Set cedar post 4 ft. long and 4 ins. square
with charred stake 12 ins. in the ground
for 1/4 sec. cor. marked 1/4 S. on W. face.
dug pits 18 x 18 x 12 ins. E. & W. of post. 5 1/2
ft dist and raised a mound of earth
2 ft high with 4 1/2 ft base around post.
60.00 N. foot of hills and enter rolling land trending E & W
80.04 Set cedar post 4 ft long 4 ins. square with
charred stake 12 ins. in the ground for
cor. to Secs. 19, 24, 25 & 30 marked
T. 31 R. 32 S. 19 on N.E. face
T. 31 R. 33 S. 24 " N.W. "
T. 31 R. 33 S. 25 " S.W. "
T. 31 R. 32 S. 30 " S.E. "

with 2 notches on S. and 4 notches on N. edges
dug pits 18 x 18 x 12 ins in each section
and raised a mound of earth 2 1/2 ft
high with 5 ft. base around post.
Land very broken,
Soil sandy 3^d & 4th rate,
Vegetation Bunch grass. etc

N. 7' E. on W. boundary of Sec. 19
Va. 13° 43' E.

40.02 To 1/4 cor. between Secs 19 and 24 which I
renew by setting a cedar post 4 ft long
4 ins square with charred stake 18 ins in
the ground in center of old mound marked
1/4 S. on W face - dug out old pits 5 1/2 ft

The 7th & 8th
21. a mound in
T. 31 R. 33 S. 25
marked by corner
post. 4 ft
through post.

Extremities of T. 31 N. R. 32 W. West line
June

chains E. and W. of post to 18x18x12 ins. and raised old mound around post to height of 2 ft. with 4 1/2 ft. base.

Land over rolling land

80.01 Set cedar post 4 ft. long 4 ins. square with charred stake 12 ins. in ground for cor. to sec. 18. 13. 24 & 19 marked

T. 31 R. 32 S. 18 on N.E. face

T. 31 R. 33 S. 13 " N.W. "

T. 31 R. 33 S. 24 " S.W. "

T. 31 R. 32 S. 19 " S.E. "

with 3 notches on N. and 3 notches on S. edges, dug pits 18x18x12 in each section 5 1/2 ft distant and raised a mound of earth 2 1/2 ft. high with 5 ft. base around post

Land rolling;

Soil 3rd rate,

Vegetation Bunch grass, etc.

N. 7° E. on W. boundary of sec 18.
va. 13° 43' E.

Over rolling and broken ground
39.99 Set cedar post 4 ft. long, 4 ins. square, with charred stake 12 ins. in the ground for 1/4 sec cor. marked 1/5 on W. face

dug pits 18x18x12 ins. E. & W. of post 5 1/2 ft distant and raised a mound of earth 2 ft high with 1 1/2 ft. base around post.

Land rolling on broken ground

79.98 Set cedar post 4 ft. long 4 ins. square with charred stake 12 ins. in the ground for cor. to sec 7. 12. 13 & 18. marked

T. 31 R. 32 S. 7 on N.E. face

T. 31 R. 33 S. 12 " N.W. "

T. 31 R. 33 S. 13 " S.W. "

T. 31 R. 32 S. 18 " S.E. "

with 4 notches on S. and 2 notches on N. edge dug pits 18x18x12 ins. in each section 5 1/2 ft. distant and raised a mound of earth 2 1/2 ft high with 5 ft base around post

Land Rolling & broken Soil 3rd rate Vegetation Bunch grass, etc.

Extremities of T. 31 N. R. 32 W. West line
June

chains N. 7° E. on W. line of sec 7.

va. 13° 43' E.

ascending

2.00 Top of range of sand hills 170 ft. high

trending E. & W. and descend

32.00 Foot of sand hill and enter Chamberlain Valley trending E. & W.

39.99 To 1/4 cor on West of sec 7, which I saw by setting cedar post 4 ft. long 4 ins square with charred stake 2 ft. in the ground in old mound with 1/4 S. marked on W. face and digging out old pits 5 1/2 ft. E. & W. of 18x18x12 ins. and raising old mound around post to height of 2 ft. with 4 1/2 ft. base.

N.W. cor. of Chamberlain's field which is about 20 ch. E. & W. by 10 ch. N. & S. bears East about 20 ch. from this 1/4 cor.

42.00 West end of Chamberlain slough bears East 2 chs. distant - and extends Eastward.

61.20 Leave valley and ascend sand bluff over very broken ground.

80.01 Set cedar post 4 ft. long 4 ins. square with charred stake 12 ins. in ground for cor. to sections 6. 1. 12 & 7. marked

T. 31 R. 32 S. 6 on N.E. face

T. 31 R. 33 S. 1 " N.W. "

T. 31 R. 33 S. 12 " S.W. "

T. 31 R. 32 S. 7 " S.E. "

with 5 notches on S. and 1 notch on N. face. dug pits 18x18x12 ins in each section 5 1/2 ft. distant and raised a mound of earth around post 2 1/2 ft. high with 5 ft. base

Land very broken, except across valley, which is level.

Soil - In valley 2nd rate, all the rest 4th rate

Vegetation Slough grass in valley Bunch grass on hills etc.

N. 7° E. on W. Boundary of sec. 6

va. 13° 43' E.

9.00 Top of range of sand hills 150 ft. high trending E. & W.

30.00 Bottom of grassy hillside 100 ft. below hill top and ascend

Exteriors of T 31 N. R 32 W

West line

- chains
40.02 $\frac{1}{4}$ cor. on W. of sec. 6 which I renew by setting cedar post 4 ft. long 4 ins. square with charred stake 18 ins. in ground in center of old mound marked $\frac{1}{4}$ S. on W. face also dug out old pits 5 $\frac{1}{2}$ ft. E. & W. of post to 18x18x12 ins. and raised old mound around post to height of 2 ft. with $\frac{1}{2}$ ft. base
- 45.00 Top of sand ridge 180 ft high trending E. & W. Thence over very broken ground
- 80.00 Cor. to townships 31.32 ranges 32.33 which I renew by setting a cedar post 4 $\frac{1}{2}$ ft. long 4 ins. square with charred stake 18 ins. in the ground in center of old mound marked
- T. 32^N R. 32^W S. 31 on N. E. face
T. 32 N. R. 33 W. S. 36 " N. W. "
T. 31 N. R. 33 W. S. 1 " S. W. "
T. 31 N. R. 32 W. S. 6 " S. E. "
- with 6 notches on each corner. I also dug out the old pits N. S. E. & W. of post and 6 ft distant to 24x18x12 ins. in size and raised the old mound around post to the height of 2 $\frac{1}{2}$ feet. with 6 ft. base
Land very broken.
Soil 3^d & 4th rate.
Vegetation Bunch grass.
- June 4th 1889
S. & C.

Exteriors of T 31 N. R 32 W

Random.

South line

- chains From the cor. to tps. 30 & 31 N. rgs. 32 & 33 W.
I run N. 89° 40' E. on a random line along the S. boundary of T 31 R 32.
v. 13° 43'
- And at 5 miles 74 chs. a 40 lbs struck a point 1.38 chs N. of the cor. to tps. 30 & 31 N. rgs. 32 & 33 W. which is a mound 2 $\frac{1}{2}$ ft high with 7 ft base. and pits 24x24x12 ins. N. S. E. & W. of center of mound 6 ft. distant. The return course for the S. line of T 31 R 32 is therefore S. 89° 50' W.
- While running this random line I set temporary corners at each 40 & 80 chs. to serve as a check on my measurement back on the true line. I also carefully examined the ground for two or three chains on each side of the whole line but found no trace of either mound, pit or stake. I shall therefore establish the $\frac{1}{4}$ sec. and Sec. corners at regular intervals of 40 & 80 chains, measuring from the east on the true south line of this township and put thereon the proper marks for T. 31 R. 32 only
- June 5th 1889

True S line

- From the cor. to townships 30 & 31 N. Ranges 31 & 32 W. which is a mound 2 $\frac{1}{2}$ ft high 7 ft base with pits 24x24x12 ins N. S. E. & W. of center of mound 6 ft distant which I renewed by setting a cedar post 4 $\frac{1}{2}$ ft long 4 ins square with charred stake 2 ft in the ground in center of the mound marked T. 31 N. R. 31 W. S. 31 on N. E. face
T. 31 N. R. 32 W. S. 36 " N. W. "
T. 30 N. R. 32 W. S. 1 " S. W. "
T. 30 N. R. 31 W. S. 6 " S. E.
- with 6 notches on each edge N. S. E. & W. — I run

Exteriors of T 31 N. R 32 W South line
True.

chains S. 89° 50' W on the true South line
of sec 36.

Va. 13° 43' E.

40.00 Over level or gently rolling land
Set a cedar post 4 ft long
4 ins square with charred stake
12 ins in the ground for $\frac{1}{4}$ sec.
Cor. marked $\frac{1}{4}$ S on N face

Dug pits 18 x 18 x 12 ins East
and West of post. 5 $\frac{1}{2}$ ft
distant and raised a
mound of earth around
post 2 ft high with
4 $\frac{1}{2}$ ft base.

80.00 Set a cedar post 4 ft
long 4 ins square with charred
stake 12 ins in the ground
for corner to Secs. 36 & 35
on South boundary of township
Marked T 31 R 32 S 36 on NE face
T 31 R 32 S 35 " NW "

Not entirely complete

with 1 notch on East and
5 notches on West edges

Dug pits 24 x 18 x 12 ins
N.E. & NW of corner. 5 $\frac{1}{2}$ ft
distant and raised a
mound of earth around
post 2 $\frac{1}{2}$ ft high with
5 ft base.

Land level or gently rolling
with high sand hills both
North & South of the line about
20 chs distant. The West end
of the range on the south is about
20 chs S.W. of this corner

Soil 2nd & 3rd rate

Vegetation Buffalo grass & bunch grass
etc.

Exteriors of T. 31 N. R. 32 W. South line.
True.

chains S. 89° 50' W. on true South boundary of
sec 35.

Va. 13° 43' E.

Over rolling land extending South
to Snake river from 60 to 80 chs distant
and high sand ridge to the North

40.00 Set cedar post 4 ft long. 4 ins square
with charred stake 12 ins in the ground
for $\frac{1}{4}$ sec. Cor marked $\frac{1}{4}$ S on N face.
dug pits 18 x 18 x 12 ins E & W of post
5 $\frac{1}{2}$ ft distant and raised a mound
of earth 2 ft high with 4 $\frac{1}{2}$ ft base
around post.

80.00 Set cedar post 4 ft long 4 ins square
with charred stake 12 ins in the ground
for cor to sections 35 & 34 on S boundary
Marked T 31 R 32 S 35 on NE face
T 31 R 32 S 34 " NW "

with 2 notches on E and 4 notches on W edges
dug pits 18 x 18 x 12. NE & NW of
post 5 $\frac{1}{2}$ ft. distant and raised a
mound of earth 2 $\frac{1}{2}$ ft high with 5 ft
base around post.

Land rolling

Soil 2nd and 3rd rate

Vegetation Buffalo grass & bunch grass
etc.

S. 89° 50' W on true S. boundary of sec ³⁴
Va. 13° 43' E.

Over rolling land extending South
to Snake river from 40 to 60 chs distant,
and high sand ridge to the North.

40.00 Set cedar post 4 ft long 4 ins square
with charred stake 12 ins in the ground
for $\frac{1}{4}$ sec. Cor marked $\frac{1}{4}$ S on N face.
dug pits 18 x 18 x 12 ins E & W of post
5 $\frac{1}{2}$ ft. distant and raised a mound
of earth 2 ft high with 4 $\frac{1}{2}$ ft base
around post.

80.00 Set cedar post 4 ft long 4 ins square
with charred stake 12 ins in the

Extensions of T. 31 N., R. 32 W. South line.
June

chains ground for cor. D Secs 34 & 33 on South
Boundary Marked T 31 R 32 S 34 on NE face
T 31 R 32 S 33 " NW "
with 3 notches on E and 3 notches on W edges.
dug pits 18x18x12 ins NE & NW of post
5 1/2 ft distant and raised a mound of
earth 2 1/2 ft high with 5 ft base around post.
Land rolling
Soil 2nd & 3rd rate
Vegetation Buffalo grass & Bunch grass
E & G

S. 89° 50' W on true S boundary of Sec. 33.
Va 13° 43' E

- 25.00 Foot of sand hill and ascend
- 35.00 Top of sand hill ^{on top} which is the E end of
a range trending E & W
- 40.00 Set Cedar post 4 ft long 4 ins square
charred stake 12 ins in the ground for 1/4
sec. cor. marked 45 on N. face
dug pits 18x18x12 ins E & W of post and
5 1/2 ft distant and raised a mound
of earth 2 ft high with 4 1/2 ft base around post
thence over very broken ground along
and near the crest of a range of sand
hills with Snake river at the S foot of
same from 20 to 50 chs. distant
- 80.00 Set Cedar post 4 ft long 4 ins sq
2 1/2 ft in the ground with charred stake
for cor. D Secs 33 & 32 on S boundary
marked T 31 R 32 S 33 on NE face
T 31 R 32 S 32 " NW "
with 4 notches on E and 2 notches on W edges
dug pits 18x18x12 ins NE & NW of post
5 1/2 ft distant and raised a mound
of earth 2 1/2
mound and pits useless on account
of drifting sand.
Land very broken
Soil 4th rate
Vegetation Bunch grass E & G

Extensions of T. 31 N., R. 32 W. South line.
June

chains S 89° 50' W. on true S boundary of Sec 32.
Va 13° 43' E

- over very broken ground along and near
crest of range of sand hills from 100 to 150 ft
high with Snake river at their S foot from
20 to 40 chs distant
- 40.00 Set Cedar post 4 ft long 4 ins square
with charred stake 2 1/2 ft in the ground
for 1/4 sec cor marked 45 on N face.
mound and pits useless on account
of drifting sand.
- 80.00 Set a cedar post 4 ft long 4 ins
square with charred stake 2 1/2 ft in
the ground for cor D Secs 32 & 31 on
S boundary marked T 31 R 32 S 32 on NE face
T 31 R 32 S 31 " NW "
with 5 notches on E and 1 notch on W edges
mound & pits useless on account of drifting sand.
Land very broken
Soil 4th rate
Vegetation Bunch grass. there is a small
Hackberry grove about 2 acres in extent on N side
of Snake river about 10 chs S of this corner.
E & G

S. 89° 50' W. on true S boundary of Sec 31
Va 13° 43' E.

- over very broken land along crest of sand ridge
- 40.00 Set Cedar post 4 ft long 4 ins square 2 1/2 ft in
the ground with charred stake for 1/4 sec cor marked
45 on N face. mound & pits useless on
account of drifting sand.
- 48.00 Sand ridge turns N.W. line descends to low foot hills
- 74.40 Cor D Townships 30, 31 Ranges 32, 33.
Land very broken
Soil 4th rate
Vegetation Bunch grass

June 6th 1889
E & G

Exteriors of T. 31 N, R. 32 W East line.
Random.

chains From car D Townships 30.31^N ranges 31.32^W
I run N 3° E on a random line along
E boundary of T 31 R 32
va 12° 43' E.

40.02 To point 5 lbs E of 1/4 car. Mound and
pits entirely obliterated but found charred stake
under ground at corner and cedar stake 2 ft
long 2 ins sq marked 1/5 on W face standing
5 1/2 ft N of corner. True course N. 2° 56' E.
Containing N 3° E on same transit line

40.10 To point 9 lbs E of car D sec 30.23.36.43
Mound and pits entirely obliterated but found
charred stake under ground at corner and 5 1/2 ft
S E of it a cedar stake 2 ft long 2 ins square with
5 notches on N & 1 notch on S edges and marked
T 31 N. S 30 on N E face
R 32 W. S 36 on SW "

with some illegible marks on the other two faces
this stake was standing erect in the ground
but was entirely covered with sand the top being
about 2 ins below the surface.
True course N. 2° 56' E.

Containing N 3° E on same transit line
but measuring from point E of this car.

40.03 To point 14 lbs E of 1/4 car when I found
some trace of a mound with a cedar stake
2 ft long 2 ins square marked 1/5 on W face
standing 5 1/2 ft N of it. True course N. 2° 56' E.

40.08 To point 17 lbs E of car D sec 29.24.25.30 when
I found old mound and pits in good state of preservation
with cedar stake in 5 1/2 ft. Marks on stake illegible
except 4 notches on N corner and S 24 on SW face
all other marks had been burned off.
True course N. 2° 56' E.

Containing N 3° E on same transit line
but measuring from point E of this car

39.97 To point 24 lbs E of 1/4 car when I found
old mound with pits & 2 S 5 1/2 ft dist in good
state of preservation with cedar stake badly
burned lying by N pit - no marks legible
True course N. 2° 56' E.

Exteriors of T 31 N R 32 W East line.
Random.

chains
50.05 To point 29 lbs E of car D sec 18.13.24.27
when I found charred stake under ground with
cedar stake 2 ft long 2 ins square standing erect
in the ground 5 1/2 ft S E of it. marked
R 32 W S 24 on SW face
R 31 W S 17 " S E " with 3 notches
on N edge and same on S edge - No other marks
legible - This stake was entirely covered
with sand and found only by digging
no mound or pits visible
True course N. 2° 56' E.

Containing N 3° E on same transit line
& measuring from point E of this corner.

40.02 To point 34 lbs E of 1/4 car when I found
mound and pits in good state of preservation
with cedar stake in N pit marked 1/5 on W face
True course N. 2° 56' E.

40.02 To point 39 lbs E of car D sec 7.12.13.18
when all traces of mound & pits were obliterated
but I found charred stake under ground
at the corner with cedar stake 2 ft long 2 ins
square 5 1/2 ft S E of it. This stake was standing
erect in the ground but was entirely buried
with its sand and was marked
T 31 N S 7 on N E face } R 32 W S 13 on SW face
S 12 " W " } & R 31 W S 18 " S E "

with 4 notches on S and 2 notches on N edges.
True course N. 2° 56' E.

Containing N 3° E on same transit line
and measuring from point E of this corner

40.03 To point 44 lbs E of 1/4 car when I found
mound and pits in good state of preservation
with cedar stake marked 1/5 lying by N pit.
True course N. 2° 56' E.

40.01 To point 49 lbs E of car D sec 6.11.2.7
where I found mound with pits
all plain but no trace of stake on or
about mound or pits
True course N. 2° 56' E.

Containing N 3° E on same transit line
and measuring from point E of this corner

39.95 To point 53 lbs E of 1/4 car when I found

Exteriors of T. 31 N. R. 32 W. East line
Random.

chains mound and pits plain with cedar stakes lying in N pit with no legible marks on it True course $N 2^{\circ} 56' E$

66.79 To point 56 lbs E of cor to townships 31 & 32 N ranges 31, 32 W which is a large mound with wide and deep pits N, S E & W 6 ft distant and cedar stake lying in SE pit with 6 notches cut on one corner, no other marks legible the stake being badly burned

True course $N 2^{\circ} 56' E$

While running the last mile the North end of the needle has gradually crept to the West till it now shows a var. of $13^{\circ} 10' E$ only.

I know my line is straight for I can see a number of my back sights on the hill tops for 3 or 4 miles back and they are all in line - I don't know whether this change is caused by local attraction or not, and as it is time to return to camp I will leave the matter for further investigation.

The alignment and measurement on the original survey of this line have been excellent and the field notes sent for my guidance are reliable. The main discrepancy being in the course which is $N 2^{\circ} 56' E$ instead of $N 2^{\circ} 25' E$.

The whole length of the line is.

467.25 chs

I shall therefore perpetuate these corners by setting cedar posts at the several points where they were originally located as shown by the foregoing notes.

June 7th 1889
E. C. G.

Exteriors of T. 31 N. R. 32 W. East line
True.

chains From the corner to townships 30, 31 N ranges 31, 32 W which is a large mound with pits 24 x 24 x 12 ins N, S, E & W of cor and 6 ft distant with a cedar post 4 ft long 4 ins square with charred stake in center of mound marked T 31 N R 31 W S 31 on NE face

T 31 N R 32 W S 36 " NW "

T 30 N R 32 W S 1 " SW "

T 30 N R 31 W S 6 " SE "

with 6 notches cut on each edge
I run $N 2^{\circ} 56' E$ on true E line of sec 36
or $13^{\circ} 43' E$.

Our level ground.

12.00 Leave level ground and ascend
18.00 Top of hill 50 ft high trending E & W & descend
25.50 Foot of hill and ascend
31.50 Top of sand ridge 60 ft high trending E & W
38.50 S rim of basin
40.00 Bottom of basin 60 ft deep
40.02 Old $\frac{1}{4}$ cor where I set a cedar post 4 ft long 4 ins square with charred stake $2\frac{1}{2}$ ft in the ground marked $\frac{1}{4}$ S on W face mound and pits useless on account of shifting sand. Left old cedar stake standing $5\frac{1}{2}$ ft N of corner.
41.80 North rim of basin & enter very broken ground
80.10 Old cor to secs 30, 25, 36 & 31 where I set a cedar post 4 ft long 4 ins square with charred stake $2\frac{1}{2}$ ft in the ground marked T 31 R 31 S 30 on NE face
T 31 R 32 S 25 " NW "
T 31 R 32 S 36 " SW "
T 31 R 31 S 31 " SE "

with 1 notch on S and 5 notches on E edges mound and pits useless on account of shifting sand. Left old cedar stake standing $5\frac{1}{2}$ ft SE of cor.

Land Broken

Soil 3^d & 4th rate

Vegetation Bunch grass

E. C. G.

Exteriors of T. 31N., R. 32W. East line
True

- chains N 2°56' E on true E line of sec 25
Va 13°43' E
- Over very broken ground
- 40.03 Old $\frac{1}{4}$ car where I set a cedar post
4 ft long 4 ins square with charred stake
2 $\frac{1}{2}$ ft in the ground marked $\frac{1}{4}$ S on W face
mound and pits useless on account of
shifting sand.
Left old cedar stake standing 5 $\frac{1}{2}$ ft
N of corner.
- 70.40 Top of hill 75 ft high trending E-W & descend
- 80.08 Old car to secs 19 24 25 and 30 where I
set a cedar post 4 ft long 4 ins square
with charred stake 18 ins in the ground
in center of old mound marked
- T 31 R 31 S 19 on N E face
T 31 R 32 S 24 " N W "
T 31 R 32 S 25 " S W "
T 31 R 31 S 30 " S E "
- with 2 notches on S and 4 notches on N edges
dug out old pits N E N W S W & S E of post
and raised old mound around post
to height of 2 $\frac{1}{2}$ ft with 5 ft base.
Left old cedar stake standing in
S E pit.
- Land very broken
Soil 3rd & 4th rate
Vegetation bunch grass
-
- N 2°56' E on true E line of sec 24
Va 13°43' E.
- 10.00 Foot of hill and enter valley trending E-W
- 39.99 Old $\frac{1}{4}$ car where I set cedar post
4 ft long 4 ins square with charred stake
2 ft in the ground marked $\frac{1}{4}$ S on W face
dug out old pits N & S of post 5 $\frac{1}{2}$ ft distant
to 18x18x12 in size and raised old
mound to height of 2 ft with 4 $\frac{1}{2}$ ft
base.
- 48.30 Leave valley and ascend.

Exteriors of T 31N R 32W - East line
True

- chains
- 62.00 Top of range of sand hills 100 ft high trending E-W
- 79.50 Foot of sand hill and enter rolling land
- 80.05 Old car to secs 18, 13, 24 & 19 where I set
a cedar post 4 ft long 4 ins square with charred stake
2 $\frac{1}{2}$ ft in the ground marked
- T 31 R 31 S 18 on N E face
T 31 R 32 S 13 " N W "
T 31 R 32 S 24 " S W "
T 31 R 31 S 19 " S E "
- with 3 notches on S and 3 notches on N edges
mound and pits useless on account of
shifting sand Left old cedar stake standing
5 $\frac{1}{2}$ ft S E of car.
- Land 5 $\frac{1}{2}$ mostly level N E broken
Soil 5 $\frac{1}{2}$ 2nd rate, N E 3rd rate
Vegetation 5 $\frac{1}{2}$ Buffalo grass, N E bunch grass
-
- N 2°56' E on true E line of sec 18.
Va 13°43' E
- Over rolling land.
- 40.02 Old $\frac{1}{4}$ car, where I set a cedar post
4 ft long 4 ins square with charred stake
18 ins in the ground in center of old
mound marked $\frac{1}{4}$ S on W face.
dug out old pits N & S of corner 5 $\frac{1}{2}$ ft
distant to 18x18x12 ins in size and
raised old mound around post to
height of 2 ft with 4 $\frac{1}{2}$ ft base
Left old stake standing in N. pit.
- thence over rolling ground
- 80.02 Old car to secs 7, 12, 13 & 18 where I set
a cedar post 4 ft long 4 ins square with
charred stake 2 $\frac{1}{2}$ ft in the ground
marked
- T 31 R 31 S 7 on N E face
T 31 R 32 S 12 " N W "
T 31 R 32 S 13 " S W "
T 31 R 31 S 18 " S E "
- with 4 notches on S and 2 notches on N edges
mound and pits useless on account
of shifting sand. Left old stake

Exteriors of T 31 N R 32 W
June.

East line

chains standing $5\frac{1}{2}$ ft SE of corner
Land rolling
Soil 3rd rate
Vegetation Bunch grass ~~etc~~

N $2^{\circ}56'8''$ on true E. line of Sec 12.
va $13^{\circ}43'$

over rolling ground

40.03 Old $\frac{1}{4}$ sec cor. where I set a cedar post 4 ft long, 4 ins square with charred stake 18 ins in the ground in center of old mound marked $\frac{1}{4}$ S on W face dug out old pits N & S of corner $5\frac{1}{2}$ ft distant to $18 \times 18 \times 12$ ins in size and raised old mound around post to height of 2 ft with $4\frac{1}{2}$ ft base.

80.01 Old cor. to secs 6, 1, 12 & 7 where I set a cedar post 4 ft long, 4 ins square with charred stake 18 ins in the ground in center of old mound marked

T 31 R 31 S 6 on NE face

T 31 R 32 S 1 " NW "

T 31 R 32 S 12 " SW "

T 31 R 31 S 7 " SE "

with 5 notches on S and 1 notch on N edges, dug out old pits NE NW SW & SE of post $5\frac{1}{2}$ ft distant to $18 \times 18 \times 12$ ins in size and raised old mound around post to height of $2\frac{1}{2}$ ft with 5 ft base

Land rolling
Soil 3rd rate
Vegetation Bunch grass ~~etc~~

N $2^{\circ}56'8''$ on true E line of Sec 1
va $13^{\circ}43'6''$

over rolling ground

39.95 Old $\frac{1}{4}$ sec corner where I set a cedar post 4 ft long, 4 ins square with charred stake 18 ins in the ground in center of old mound marked $\frac{1}{4}$ S on W face dug out old pits N & S of post and

Exteriors of T 31 N R 32 W
June

East line

chains $5\frac{1}{2}$ ft distant to $18 \times 18 \times 12$ ins in size and raised old mound around post to height of 2 ft with $4\frac{1}{2}$ ft base.

66.99 Old corner to townships 31, 32, ranges 31, 32 where I set a cedar post $4\frac{1}{2}$ ft long, 4 ins square with charred stake 2 ft in the ground in center of old mound marked T 32 N R 31 W S 31 on N.E. face
T 32 N R 32 W S 36 " N.W. "
T 31 N R 32 W S 1 " S.W. "
T 31 N R 31 W S 6 " S.E. "

with 6 notches on each edge N S E & W

Old pits N S E & W of corner 26 feet distant being already $24 \times 24 \times 12$ ins and the mound being $2\frac{1}{2}$ ft high I left them as they were.

I find the needle all right here today therefore the change noted on the last mile yesterday must have been caused by some atmospheric disturbance instead of local attraction. Land rolling Soil 3rd rate
Vegetation Bunch grass June 5th 1887. ~~etc~~

North (Random) line

From the cor. to Townships 31, 32 N Ranges 32 33 W I run $S 88^{\circ}30' E$ on a random line along N. boundary of T 31 R 32 - va $13^{\circ}43' E$ and at 499.85 chs struck a point 86 links South of Cor. to Tps 31, 32 Rps 31, 32

The return course is therefore $N 88^{\circ}36' W$.

I carefully examined the ground for two chains or more on both sides of this whole line and found no trace of either mound, pit, stake, or stone. It appears therefore that the notes of this line sent me are bogus. So I shall establish the $\frac{1}{4}$ sec. and sec. corners at regular intervals of 40 & 50 chains from the East end - and on the true North line of this Township putting thereon the proper marks for T 31 R 32 only.

June 10th 1887.

Exteriors of T 31 N R 32 W North line
True

chains From car to the 31.32^{1/2} Rys 31.32 W which is a cedar post 4 ft long 4 ins sq with charred stakes set 18 ins in the ground and marked
T 32 31^{1/2} R 31 W S 31 on N E face
T 32 W R 32 W S 36 " N W "
T 31 N R 32 W S 1 " S W "
T 31 N R 31 W S 6 " S E "
with 6 notches on N.S. E & W corners with pits 2 1/4 x 2 1/4 x 12 ins N S E & W of cor and 6 ft distant and mound of earth around post 2 1/2 ft high with 6 ft base
I run N 88° 36' W on true N line of sec 1
Va 13° 43' E.

Over very broken ground along S face of sand ridge
40.00 Set cedar post 4 ft long 4 ins square with charred stake 12 ins in ground for 1/4 sec cor. Marked 1/4 S on N face dug pits 18 x 18 x 12 ins E & W of post 5 1/2 ft distant and raised a mound of earth around post 2 ft high with 4 1/2 ft base.

80.00 Set cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for cor to secs. 1 & 2 on North boundary marked T 31 R 32 S 1 on SE face & T 31 R 32 S 2 on SW face with 1 notch on E & 5 notches on W edges. dug pits 24 x 18 x 12 S E 2nd S W of post 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high with 5 ft base
Land very broken with high sand ridge on the North and narrow valley of level or rolling land to the South.
Soil 3rd rate
Vegetation Bunch grass etc.

N. 88° 36' W on true north line of sec 2
Va 13° 43' E

Over very broken ground along S face of a range of high sand hills
40.00 Set cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for 1/4 sec. cor. Marked 1/4 S on N face. dug pits 18 x 18 x 12 E & W of post 5 1/2 ft distant and raised a

Exteriors of T 31 N R 32 W North line
True

chains mound of earth around post 2 ft high with 4 1/2 ft base
80.00 Set cedar post 4 ft long 4 ins square with charred stake 12 ft in the ground for cor to secs 2 & 3 on North boundary marked T. 31 R. 32. S. 2. on SE face & T. 31 R. 32 S. 3 on S.W. face. with 2 notches on E and 4 notches on W edges. Mound and pits useless on account of drifting sand.
Land very broken
Soil 3rd rate
Vegetation bunch grass etc.

N. 88° 36' W on true N. line of sec 3
Va 13° 43' E.

Over very broken ground generally ascending
30.00 Top of sand ridge 125 ft high trending N. & S.
35.00 Foot of sand ridge. Enter valley of level or rolling land trending N. & S.

40.00 Set cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for 1/4 sec cor. marked 1/4 S on North face. dug pits 18 x 18 x 12 E & W of post 5 1/2 ft distant and raised a mound of earth around post 2 ft high with 4 1/2 ft base
49.50 Leave valley and ascend over very broken ground.

80.00 Set cedar post 4 ft long 4 ins square with charred stake 12 ins in the ground for cor to secs. 3 & 4 on North boundary. Marked T 31 R 32 S 3 on S.E. face and T 31 R 32 S 4 on S.W. face with 3 notches on E & 3 notches on W edges. dug pits 24 x 18 x 12 S.E. & S.W. of cor. 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high with 5 ft base
Land very broken except across valley which was level or rolling
Soil 3rd rate - Valley 2nd rate
Vegetation Bunch grass etc.

Exteriors of T 37 N R 32 W North line
Twp.

chains N 88° 36' W on true North line of sec 4.
Va 13° 43' E.
Over very broken land

40.00 Set cedar post 4 ft long 4 ins square with chamed stake 12 ins in the ground for 1/4 sec. cor. marked 45 on N face dry pits 18x18x12 E & W of corner 5 1/2 ft distant and raised a mound of earth around post 2 ft high with 4 1/2 ft base

80.00 Set Cedar post 4 ft long 4 ins square with chamed stake 2 1/2 ft in the ground for cor to sec 4 & 5 on North boundary - marked T 31 R 32 S. 4 on SE face and T. 31 R. 32 S. 5 on SW face with 4 notches on E & 2 notches on W. edges Mound and pits useless on account of drifting sand.

Land very broken
Soil 3rd & 4th rate
Vegetation bunch grass etc

N 88° 36' W on true North line of sec 5
Va 13° 43' E.
Over very broken ground

40.00 Set Cedar post 4 ft long 4 ins square with chamed stake 12 ins in the ground for 1/4 sec. cor marked 45 on N face. dry pits 18x18x12 ins 5 1/2 ft E & W of corner and raised a mound of earth around post 2 ft high with 4 1/2 ft base.

50.20 Top of sand ridge 150 ft high trending N & S

60.00 Foot of sand ridge and enter level on rolling valley land trending N & S.

80.00 Set cedar post 4 ft long 4 ins square with chamed stake 12 ins in the ground for cor to sec 5 & 6 on north boundary. marked T 31 R 32 S. 5 on S E face & T 31 R 32 S. 6 on S W face with 5 notches on E and 1 notch on W. edges dry pits 18x18x12 ins SE & SW of cor 5 1/2 ft distant and raised a mound of earth around post 2 1/2 ft high with 5 ft base

Land very broken, except W 20 chs which was level
Soil 3rd rate - Vegetation Bunch grass etc

Exteriors of T 31 N R 32 W North line
Twp.

chains N 88° 36' W on true North line of sec. 6.
Va 13° 43' E.

8.00 Leave valley and ascend over very broken ground into cluster of high sand hills

40.00 Set cedar post 4 ft long 4 ins square with chamed stake 2 1/2 ft in the ground for 1/4 sec cor marked 45 on N face. Mound and pits useless on account of shifting sand

92.30 Top of sand hill 175 ft high & descend

97.85 Cor to tps 31.32 rgs 32.33 which is a cedar post 4 1/2 ft long 4 ins square with chamed stake in center of a large mound and marked T 32 N R 32 W S 31 on NE face
T 32 N R 33 W S 36 " " N.W. "
T 31 N R 33 W S 1 " " S.W. "
T 31 N R 32 W S 6 " " S.E. "

With 6 notches on each edge and pits 24x18x12 N S E & W of post 6 ft distant. Mound around post 2 1/2 ft high with 6 ft base

Land very broken. A confused jumble of sand hills. blow outs and basins on each side of the line

Soil 4th rate
Vegetation bunch grass
June 11th 1889
E.S.

General Description

This Township is composed principally of rough sand hills and ridges and in my opinion is unfit for anything except grazing purposes. The ground is too sandy for cultivation but as some parties wish to take homesteads here it should probably be surveyed.

J D Patterson
U.S. Surveyor
Examined & Compared. J.A.W.

List of Names.

A list of the names of the individuals employed by Joseph D. Patterson, 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 re-tracement of the North, South, East and West boundaries of T. 31 N. R. 32 W. of the Sixth

Principal Meridian, in Nebraska, showing the respective capacities in which they acted:

| | |
|-----------------------------|-----------------|
| <u>Charles S. Patterson</u> | <u>chairman</u> |
| <u>Charles King</u> | <u>chairman</u> |
| <u>Clarence Cutcomb</u> | <u>axeman</u> |
| <u>Julius Fusher</u> | <u>axeman</u> |
| <u>Henry Peters</u> | <u>flagman</u> |

Final Oath of Assistants:

We hereby certify that we assisted Joseph D. Patterson, U. S. Deputy Surveyor, in surveying all those parts or portions of the North, South, East and West boundaries of T. 31 N. R. 32 W. of the Sixth

Principal Meridian, in Nebraska, 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 Commissioner of the General Land Office

Joseph D. Patterson
Charles King
Clarence Cutcomb
Julius Fusher
Henry Peters

Subscribed and sworn to before me this 24th day of June, 1887.



Valentine Menzel J. P.
 in & for Cherry Co. Neb.

18
20
76

86

103

87 '9

(4-679.)

FIELD NOTES

OF THE SURVEY OF

The additional Survey and Meandering in fractional Township No. 32

North, Range No. 6 West.

Of the Sixth Principal Meridian,

in the State of Nebraska.

AS SURVEYED BY

CHARLES A. NIPPEL, *W. S. Deputy Surveyor,*

Under his ~~Instructions~~ Instructions, dated March the 22d 1890.

Survey commenced April the 28th 1890.

Survey completed May the 2d 1890.

Names and Duties of Assistants.

Robert A. Hindman, Chairman.

William B. Pratt, Chairman.

Joseph Kukral, Axeman.

Fritz A. Robert, Axeman.

John A. Wilson, Flagman.

INDEX DIAGRAM.

Township 32 North, Range 6 West

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Preliminary Oaths of Assistants.

We, Robert A. Hindman and William R. Pratt,

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 additional survey

and meandering of Fractional Township No. 32 North, Range 6 West of the 6th P. M. in the State of Nebraska.

Robert A. Hindman, Chainman.

William R. Pratt, Chainman.

Chainman.

Chainman.

Subscribed and sworn to before me this 28th day of April A. D., 1890.

Vac Randa

Notary Public.

SEAL

We, Joseph Kukral and Fritz A. Robert,

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

additional survey and meander lines in fractional Township No. 32 North, Range No. 6 West of the 6th P. M. in the State of Nebraska.

Subscribed and sworn to before me this 28th day of April A. D., 1890.

Joseph Kukral, Axeman.

Fritz A. Robert, Axeman.

Vac Randa

Notary Public

SEAL

Part of Exterior lines in

91
1

Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains To determine the proper adjustment of my compass for the resurvey of this fractional township I commenced at the corner to sections 19, 24, 25 and 30, in township 32 north, ranges 6 and 7 west of the 6th P. M., and run South on a blank line along the east boundary of sec. 25, township 32 north, range 7 west of the 6th P. M. Var. 12° 05' East.

40.10 To the 1/2 sec. cor.
80.20 The cor. to secs. 25, 30, 31 and 36. Finding this to be the proper adjustment of my compass I commenced the resurvey on the 28th day of April 1890.

From the cor. to secs. 25, 30, 31 and 36, I run North, bet. secs. 25 and 30, on a true line. Var. 12° 05' East.

Over level bottom.
18.50 A slough 100 lks. wide, bears N. N. E. and S. S. W.
22.10 Leave bottom and ascend.
26.10 Enter level prairie.
40.10 The 1/2 sec. cor. as described in Deputy Meyer's field notes from which, A dwelling-house belonging to "Yellow Horse" a Ponca Indian bears south 47° west 41 lks. dist., his stable bears due east 240 lks. dist.
49.80 A ravine 100 lks. wide bears east and west.
51.50 From this point due east 145 lks. dist. a cattle shed belonging to "Bird Head," a Ponca Indian.
53.00 From this point due east, 105 lks. dist., his stable and cribs.
55.16 Struck the south end of his dwelling-house, and took an offset of 50 lks.
57.00 Got back on line, and leave his yard.
65.00 Leave level prairie and descend.
68.50 Enter level bottom.
75.70 Descend bank about 10 feet high and enter low level bottom.
80.20 The cor. to secs. 19, 24, 25 and 30 as described in Deputy Meyer's field notes, but the post was so much burned off, and the marks so obliterated, that

20
76

92
2

Part of Exterior lines in

Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains I deemed it best to re-establish the same.
I therefore destroyed all traces of the old corner and re-established it as follows:
Set a sandstone 16x14x10 ins., 12 ins. in the ground for sec. cor. to secs. 19, 24, 25 and 30, marked with 4 notches on north, and 2 notches on south edges, dug pits 18x18x12 ins. in each sec., 6 ft. dist. and raised a mound of earth alongside.
Land, level.
Soil, bottom sandy, 2nd rate, prairie 1st rate.
No timber.

North, bet. secs. 19 and 24.
Var. 12° 05' East.

Over level bottom.

40.10 The 1/2 sec. cor. as described in Deputy Meyer's field notes, but greatly decayed and obliterated: I therefore destroyed all traces of the old cor. and re-established it as follows:

Set a sandstone 28x18x6 ins., 20 ins. in the ground for 1/2 sec. cor. marked 1/2 on W. face, dug pits 18x18x12 ins. N. and S. of stone, 6 ft. dist., and raised a mound of earth alongside.

- 62.60 Enter pond 120 lks. wide.
- 64.10 Foot of bluffs and ascend.
- 66.00 Top of bluffs, and enter level prairie.
- 68.40 A traveled road, 30 lks. wide, bears E. and W.
- 68.70 Enter plowed field belonging to "old Smoke", a Ponca Indian.
- 76.40 Leave old Smoke's field and enter prairie.
- 78.70 Leave prairie and enter plowed field belonging to "Buffalo Chips" a Ponca Indian.
- 80.19 Set a granite boulder 21x18x10 ins., 15 ins. in the ground for cor. to secs. 13, 18, 19 and 24, marked with 3 notches on N. and S. edges, dug pits 18x18x12 ins. in each sec., 6 ft. dist. and raised a mound of earth alongside, from which Old Smoke's house bears south 42° 30' east, 10.91 chains dist.
Buffalo Chip's house bears north 23° 30' east.
5.65 chains dist.

23
3

Part of Exterior lines in

Fractional Township No. 32 North, Range 6 West of the 6th P. M.

Chains Land, level.
Soil, bottom sandy, 2nd rate prairie 1st rate.
No timber. April 28th 1890.

North, bet. secs. 13 and 18.
Var. 12° 05' East.

Over level prairie.

- 1.70 Leave Buffalo Chip's field, and enter prairie.
- 6.00 From this point due east, is Buffalo Chip's house 350 lks. dist.
- 6.50 Cross a traveled road 18 lks. wide bears N.W. and S.E.
- 17.00 An old road not traveled 30 lks. wide bears N.N.W. and S.S.E.
- 22.00 Descend in a ravine about 30 ft. deep, bears E. and W.
- 23.40 Enter pond 40 lks. wide, and ascend.
- 25.00 Enter level prairie.
- 34.50 From this point due west and 140 lks. dist. is a stable belonging to "Longrunner" a Ponca Indian.
- 36.40 From this point due west and 2 lks. dist. is his house.
- 39.80 Cross a traveled road 18 lks. wide bears N.E. and S.W.
- 40.09 The 1/2 sec. cor. as described in Deputy Meyer's field notes, and in fair condition.
- 46.00 An old road not traveled 100 lks. wide bears N.N.W. and S.S.E.
- 47.00 Leave level prairie, enter hilly land, and ascend.
- 58.10 Top of ridge and descend.
- 67.50 Cross small run 10 lks. wide - bears N.W. and S.E. and ascend.
- 80.16 The sec. cor. to secs. 7, 12, 13 and 18, but greatly damaged and obliterated. I therefore destroyed all traces of the old corner and re-established it as follows:
Set a sandstone 18x18x10 ins., 13 ins. in the ground for cor. to secs. 7, 12, 13 and 18, marked with 2 notches on N. and 4 notches on S. edges, dug pits 18x18x12 ins. in each sec., 6 ft. dist. and raised a mound of earth alongside.

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94
4

Part of Exterior lines in

Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains Land, the 1st half mile level, the 2nd hilly.
Soil, prairie dry 1st rate, hilly land 2nd rate.
No timber.

North, bet. secs. 7 and 12.
Var. 12° 05' East.

Enter high hills.

4.20 Top of ridge and descend.

9.00 Cross small run (Dry), 20 lks. wide, bears N.W. and S.E. and ascend.

14.00 From this point due east, 500 lks. dist. is a pasture fence, belongs to John Primaux, a Sioux.

27.50 Top of ridge and descend.

35.00 Ascend.

40.10 Here I made diligent search but found nothing to indicate the $\frac{1}{2}$ sec. cor. as described in Deputy Meyer's field notes, I therefore
Set a granite Boulder, 18x14x11 ins., 14 ins. in the ground for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face, dug pits 18x18x12 ins. N. and S. of stone 6 ft. dist. and raised a mound of earth alongside.

40.60 Top of ridge and descend.

53.10 Enter a washout 35 ft. deep.

54.00 Bottom of washout, a spring due west, and 4 lks. dist. runs E. and W.

55.30 Across the washout and ascend.

72.00 An old road not traveled 15 lks. wide bears E, and W. - Top of Missouri bluffs and descend.

80.19 Here I made diligent search, but found no trace of the old corner. I therefore
drove charred stake, and set a cedar post 4x4 ins. and 4 $\frac{1}{2}$ ft. long, 24 ins. in the ground for cor. to secs. 1, 6, 7, and 12, marked:
T.P. 32 N. S. 6 on N.E.
R. 6 W. S. 7 on S.E.
S. 12 on S. W. and
S. 1 on N. W. faces, with 5 notches on S. and 6 notches on E. edges, dug pits 18x18x12 ins. in each sec. 6 ft. dist. and raised a mound of earth around post.
Land, rough and hilly

125
5

Part of Exterior lines in

Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains Soil, tops of ridges 3rd rate. Valleys 2nd rate.
No timber.

North, bet. secs. 1 and 6.
Var. 12° 05' East.

Over high bluffs, descend.

8.50 The tops of the Missouri bluffs, about 100 ft. high, nearly perpendicular to the river.
At this point I found faint traces of pits and mound which were probably the remnants of Deputy Meyer's meander cor. these traces I destroyed and Drove charred stake, and set a cedar post 4x4 ins. and 4 $\frac{1}{2}$ ft. long 24 ins. in the ground for meander cor. to fractional secs. 1 and 6, marked M. C. on N. face with
T.P. 32 N. on S.
R. 6 W. S. 6 on E.
S. 1 on W. faces, dug a pit 3 ft. square, 1 ft. deep, 8 lks. S. of post, and raised a mound of earth around post.
Land, hilly and broken.
Soil, sandy, 3rd rate.
Some scattered cedar and elm trees along the bluffs and in the ravines near the Missouri River.
April 29th 1890.

Part of Sub-divisions in
Fractional Township 32 North, Range 6 West of the
6th P. M.

East from cor. to secs. 1, 6, 7 and 12.
Var. 12° 05' East.

Over broken hills, ascend.

4.50 Top of ridge and descend.

21.00 Enter ravine about 40 ft. deep, and 110 lks. wide, bears N. and S. in which are growing cedar and elm, with thick underbrush.

24.40 Top of Missouri bluffs, about 100 ft. high, and nearly perpendicular to the river.
Drove charred stake, and set a cedar post 3x3 $\frac{1}{2}$ ins. and 4 $\frac{1}{2}$ ft. long, 24 ins. in the ground for meander

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76

18

76
6

Part of Subdivision lines in
Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains corner to fractional secs. 6 and 7, marked
M. C. on E. face, with
T. 32 N. S. 6 on N. and
R. 6 W. S. 7 on S. faces; dug a pit 3 ft. square, 1
ft. deep, 8 lks. W. of post and raised a mound of
earth around post.
Land, hilly and broken.
Soil, unfit for use.
Some scattering cedar and elm trees along the river
bluffs, and in the ravines near by.

East from cor. to secs. 7, 12, 13 and 18.
Var. 12° 05' East.

Rolling hills.

2.15 Top of ridge and descend.

11.15 J. Primaux, pasture fence, bears N.W. and S.E. enter
pasture.

12.20 Dry run 40 lks. wide bears N.W. and S.E. and ascend.

19.00 Top of ridge and descend.

21.20 Landslide.

22.50 Ravine 40 ft. deep.

23.25 Across ravine and ascend.

27.00 Descend.

29.80 J. Primaux, pasture fence, bears N.E. and S.W. exit
pasture.

30.00 Bluff 60 ft. high, and descend abruptly.

31.00 Enter scattered timber of elm, and cottonwood with
thick underbrush.

31.40 Foot of bluffs, enter level timbered bottom.

35.70 Intersect the west bank of the Niobrara river,
Set a cedar post, 4x4 ins. and 4 1/2 ft. long, 24 ins.
in the ground for meander cor. to fractional secs.
6 and 18, Marked:
M. C. on E. face, with
T. 32 N. on W.
R. 6 W. S. 7 on N. and
S. 18 on S. faces, from which
A cottonwood 6 ins. in diam. bears N. 68° W. 75 lks.
dist.
A diamond willow 4 ins. diam. bears S. 56° W. 25 lks.
dist.

97
7

Part of Subdivision lines in
Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains
38.80 Intersect the west shore of the "Niobrara Island"
and set a cedar post 4x4 ins., and 4 ft. long, 24
ins. in the ground for meander cor. to fractional
secs. 7 and 18 marked:
M. C. on W. face.
T. 32 N. on E.
R. 6 W. S. 7 on N. and
S. 18 on S. faces, dug a pit 3 ft. square, 1 ft.
deep, 8 lks. E. of of post, and raised a mound of
earth around post.
No witness trees within the limits prescribed.

40.08 Here I made diligent search but found no traces of
the old corner, I therefore,
Set a sandstone 14x12x7 ins., 10 ins. in the ground
for 1/2 sec. cor., marked 1/2 on N. face, dug pits
18x18x12 ins. E. and W. of stone 6 ft. dist. and
raised a mound of earth alongside.

41.95 A cottonwood stump 18 ins. in diam. and 2 ft. high

50.45 Intersect the east shore of the "Niobrara Island,"
and set a cedar post 4x4 ins. and 5 ft. long, 30 ins.
in the ground for meander cor. to fractional secs.
7 and 18, marked:
M. C. on E. face, with
T. 32 N. on W.
R. 6 W. S. 7 on N. and
S. 18 on S. faces, dug a pit 3 ft. square, 1 ft. deep,
8 lks. west of post and raised a mound of earth
around post.
Land, on main shore hilly, a narrow bottom along the
river.
Soil, on main shore sandy, 3rd rate.
Some timber along the river consisting of elm and
cottonwood.
Land on "Niobrara Island" low, level.-
Soil, sandy, 3rd rate.
Covered with willows and underbrush, all the timber
has been cut off.

East from the cor. to secs. 13, 18, 19 and 24.
Var. 12° 05' East.

Part of Subdivision lines in

Fractional Township 32 North, Range 6 West of the 6th P. M.

| Chains | Over level prairie |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.80 | Leave "Buffalo Chip's" field and enter prairie. |
| 3.90 | Cross a traveled road 12 lks. wide bears N. and S. |
| 4.05 | Enter plowed field. |
| 10.50 | Leave plowed field and enter willows. |
| 12.20 | Intersect the west bank of the Niobrara River. Set a cedar post, 4x4 ins. and 5 ft. long, 30 ins. in the ground for meander cor. to fractional secs. 18 and 19, marked: M. C. on E. face, with T. 32 N. on W. R. 6 W. S. 18 on N. and S. 19 on S. faces, dug a pit 3 ft. square, 1 ft. deep 8 lks. W. of post and raised a mound of earth around post. from which The Government bridge bears S. 38° E. and 316 lks. dist. |
| 13.50 | Intersect the west shore of the "Niobrara Island" and set a cedar post 3½x3½ ins. and 4½ ft. long, 24 ins. in the ground for meander cor. to fractional secs. 18 and 19, marked M. C. on W. face with T. 32 N. on E. R. 6 W. S. 18 on N. and S. 19 on S. faces, from which A cottonwood 12 ins. in diam. bears N. 41° E. and 124 lks. dist. A cottonwood 10 ins. in diam. bears S. 71° E. and 153 lks. dist. Enter willows and scattered cottonwood timber. |
| 18.00 | Leave willows and enter prairie. |
| 19.50 | Cross a traveled road 26 lks. wide bears N. and S. |
| 28.00 | A slough 35 lks. wide bears N. and S. |
| 40.09 | Here I made diligent search but found no traces of the ½ sec. cor., I therefore, Set a sandstone 18x11x9 ins., 12 ins. in the ground for ½ sec. cor., marked ½ on N. face, dug pits 18x18x12 ins. E. and W. of stone, 6 ft. dist. and raised a mound of earth alongside. |
| 40.80 | Leave prairie and enter willows. |
| 41.30 | Slough 140 lks. wide, bears N. and S. |
| 46.00 | Leave willows and enter prairie. |

Part of the Subdivision lines in

Fractional Township 32 North, Range 6 West of the 6th P. M.

| Chains | |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 50.85 | Leave prairie and enter willows. |
| 52.40 | Slough 60 lks. wide bears N. and S. |
| 56.90 | Intersect the east shore of the "Niobrara Island" and set a cedar post 4x4 ins. and 4½ ft. long, 30 ins. in the ground for meander cor. to fractional secs. 18 and 19, marked: M. C. on E. face with T. 32 N. on W. R. 6 W. S. 18 on N. and S. 19 on S. faces, dug a pit 3 ft. square, 1 ft. deep, 8 lks. W. of post and raised a mound of earth around post. Land on main shore rolling and level. Soil on main shore rich land, 1st rate. Willow thicket along the river. Land on "Niobrara Island" rolling and level. Soil on "Niobrara Island": prairie sandy and 2nd rate the rest low and 3rd rate. Some scattered cottonwood on both shores. |
| East from cor. to secs. 19, 24, 25 and 30. Var. 12° 05' East. | |
| 3.30 | Over level bottom. Cross a travelled road 24 lks. wide bears N. and S. |
| 5.70 | Pond 20 lks. wide bears N. and S. |
| 10.40 | Enter "Birdhead's" pasture fence, bears N. and S. |
| 28.00 | Enter low bottom with scattered willows subject to inundation. |
| 30.70 | Slough 60 lks. wide bears N. and S.S.E. this slough is filled with stagnant water about 12 ft. deep. |
| 33.50 | Intersect the west bank of the Niobrara River, The old meander cor. has been washed away. I therefore Drove charred stake and set a cedar post 4x4 ins. and 4½ ft. long, 30 ins. in the ground for meander cor. to fractional secs. 19 and 30, marked: M. C. on E. face with T. 32 N. on W. R. 6 W. S. 19 on N. and S. 30 on S. faces, dug a pit 3 ft. square, 1 ft. |

Fractional Township 32 North, Range 6 West of the 6th P. M.

Chains deep, 8 lks. W. of post and raised a mound of earth around post.
Land, level.
Soil, sandy land, 2nd rate.
Timber, Willows and very few cottonwoods along the shore.

Meanders of the left bank of the Niobrara or L'Eau, qui Court River, down stream,

I commence at the meander corner to fractional secs. 19 and 30 in township 32, range 6 west of the 6th P.M. Thence I run with meanders in sec. 19, down stream,
Var. 12° 00' East.

Courses Chains

N.43 $\frac{1}{2}$ ° W. 5.44 at 3.50 chs. mouth of slough and due east 4.25 lks. dist. is the south end of the Niobrara Island.
N.50° W. 9.26
N.9 $\frac{1}{2}$ ° W. 11.78 at 2.40 chs. enter willows.
N.10° E. 9.15 leave willows.
N.47° E. 3.10
N.73° E. 7.57 at 6.00 chs. enter young cottonwood grove.
N. 9° W. 7.40
N.4 $\frac{1}{2}$ ° E. 2.05
N.13° W. 2.32 and leave cottonwood grove and enter prairie.
N.27 $\frac{1}{2}$ ° W. 6.40
N.58° W. 10.88
N.9 $\frac{1}{2}$ ° E. 4.15 and enter willows.
N.27° W. 16.85 To the south side of the Government bridge.
N.23° W. 3.35 To the meander cor. to fractional secs. 18 and 19.
Land, level.
Soil, sandy loam, 2nd rate.
Timber and dense brush willows and cottonwood together 62.50 chs.
Thence in sec. 18.
through willow thicket.
Var. 12° 00' East.
N.1 $\frac{1}{2}$ ° W. 7.36.

Fractional Township 32 North, Range 6 West of the 6th P. M.

Courses Chains

N.28° W. 3.13 at 2.50 chs. the old ford.
N.5 $\frac{1}{2}$ ° W. 7.92
N.31° E. 9.04 at 2.90 chs. cross a creek 4 lks. wide, and leave willows to strike a chalk rock bank.
N.51° E. 14.00 at 0.20 chs. leave chalk rock bank and enter prairie (low).
April 30th 1890.
N.28° E. 6.07 enter dense willows.
N. 1° E. 7.00
N.11 $\frac{1}{2}$ ° W. 10.38
N.31 $\frac{1}{2}$ ° W. 10.68 at 3.50 chs. cross a dry run 10 lks. wide and at 7.00 chs. strike bluffs.
N.37° E. 11.45 at 2.70 chs. strike chalk rock bank.
at 8.50 chs. a creek 14 lks. wide.
at 11.00 chs. enter timbered bottom.
N.56° E. 7.96
N.49° E. 1.22 To the meander cor. to fractional secs. 7 and 18.
Land, level bottoms and high bluffs.
Soil, bottoms sandy loam, 2nd rate.
Timber and brush, willows, elm and cottonwood together 60.00 chs.
Thence in sec. 7.
Through timbered bottom.
Var. 12° 00' East.
N.34° E. 3.10
N.6 $\frac{1}{2}$ ° E. 9.80 leave timbered bottom.
N.31° E. 8.55 at 7.50 chs. due east and 180 lks. dist. is the north end of "Niobrara Island."
at 8.55 chs. strike chalk rock bank the bluffs are about 100 feet high.
N.28° E. 34.16 at 26.50 chs. cross a creek 20 lks. wide and the old road goes up the bluffs.
at 32.75 chs. the highest point of bluffs about 180 ft. high, nearly perpendicular.
N.31 $\frac{1}{2}$ ° E. 6.27
N.27° E. 4.60 at 4.30 chs. leave chalk rock bank and enter level bottom covered with thick un-

20
76

18

102
12

Fractional Township 32 North, Range 6 West of the 6th P. M.

| Courses | Chains | |
|------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | derbrush and some scattered elm and cottonwood trees. |
| N.18 $\frac{1}{2}$ °E. | 4.26 | |
| N.19° W. | 3.94 | here I leave the left bank of the Niobrara River and turning in a westerly course follow the right bank of the Missouri river going up stream. |
| N.73° W. | 41.80 | at 11.50 chs. leave timbered bottom and strike the Missouri chalk rock bluffs rising nearly perpendicular from the water edge. at 41.80 the meander cor. to fractional secs. 6 and 7. Land, two small level bottoms the rest being bare chalk rock.. Soil, of the bottoms sandy loam, 2nd rate. Timber and brush elm and cottonwood along the Niobrara and cedar and elm along the Missouri River. |

Meanders of the "Niobrara Island" contained in secs. 7, 18 and 19.

I commence at the meander corner on the west shore of the Island situated on the sec. line between secs. 18 and 19. Thence I run with meanders in sec. 18. Through willows: down stream.
Var. 12° 00' East.

| | | |
|-------------------------|-------|---|
| N. 1° E. | 5.80 | ✓ |
| N.12° W. | 11.96 | ✓ |
| N.20° E. | 6.05 | ✓ |
| N.52° E. | 16.93 | ✓ |
| N.34° E. | 5.27 | ✓ |
| N.1 $\frac{1}{2}$ ° E. | 9.18 | ✓ |
| N.11 $\frac{1}{2}$ ° E. | 11.34 | ✓ |
| N.27 $\frac{1}{2}$ ° W. | 9.25 | ✓ |
| N.33° E. | 7.30 | ✓ |
| N.46° E. | 4.58 | ✓ |
| N.60° E. | 8.23 | ✓ |

a cottonwood tree 18 ins. in diam.
at 1.85 chs. leave willows and enter prairie
at 8.50 chs. leave prairie and enter willows.
To the meander cor. between fractional

103
13

Fractional Township 32 North, Range 6 West of the 6th P. M.

| Courses | Chains | |
|------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | secs. 7 and 18 on the west shore of the Island. Land, level. Soil, sandy, 3rd rate. May 1st 1890. |
| | | Thence in sec. 7. Through dense willow thicket. Var. 12° 00' East. |
| N.21 $\frac{1}{2}$ °E. | 3.39 | ✓ |
| N.13° W. | 3.55 | ✓ |
| N. 5° E. | 4.87 | ✓ |
| N.25 $\frac{1}{2}$ °E. | 2.10 | ✓ |
| N.34 $\frac{1}{2}$ °E. | 6.90 | ✓ |
| | | here is the north end of the Niobrara Island and turning in a south easterly direction follow the east shore of the Island going up stream. |
| S.31° E. | 2.31 | ✓ |
| S. 7° E. | 7.56 | ✓ |
| S.27° E. | 7.63 | ✓ |
| S. 8° E. | 2.56 | ✓ |
| | | to the meander cor. to fractional secs. 7 and 18 on the east shore of the Niobrara Island. Land, level subject at the point of the Island to inundation. Soil, sandy, 3rd rate. |
| | | Thence in sec. 18. Through willows and brush. Var. 12° 00' East. |
| S.10 $\frac{1}{2}$ °E. | 7.50 | ✓ |
| South | 8.34 | ✓ |
| S.16° E. | 6.20 | ✓ |
| S.20 $\frac{1}{2}$ °W. | 6.34 | ✓ |
| S. 4° E. | 7.43 | ✓ |
| S.31° E. | 7.43 | ✓ |
| | | to the north side of the Government bridge 24 lks. wide. |
| S. 4° E. | 5.31 | ✓ |
| S. 8° W. | 6.74 | ✓ |
| S.9 $\frac{1}{2}$ ° E. | 25.15 | ✓ |
| | | at 17.15 chs. mouth of slough 67. lks. wide. |

Fractional Township 32 North, Range 6 West of the 6th P. M.

| Courses | Chains | |
|----------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| S.28½°W. | 1.50 | to the meander cor. to fractional secs. 18 and 19. on the east shore of Niobrara Island. |
| | | Land, level. |
| | | Soil, sandy loam, 2nd rate. |
| Thence in sec. 19. | | |
| Through willows and brush. | | |
| Var. 12° 00' East. | | |
| S.23°W. | 3.31 | |
| S.31°W. | 11.60 | at 10.40 chs. a slough 120 lks. wide. |
| S.16°E. | 3.00 | |
| S.18°W. | 12.73 | |
| S.10°W. | 9.66 | |
| S. ½° E. | 3.36 | |
| S.3½°W. | 21.50 | Leave willows and enter cottonwood timber. |
| S.29°W. | 17.07 | at 4.80 chs. leave cottonwood timber, and enter willows. |
| | | at 17.07 chs. the south end of Niobrara Island and turning in a north westerly course follow the west shore of the Island, down stream. |
| N.64°W. | 9.28 | |
| N.21°W. | 8.42 | |
| N.10½°W. | 10.17 | |
| N.46°E. | 4.38 | |
| N.63°E. | 10.93 | along this line and N.W. of it is a sand bar 3.20 chs. wide. |
| N.21½°W. | 6.20 | |
| N.7½°W. | 9.29 | |
| N.28°W. | 5.75 | |
| N.65½°W. | 7.67 | |
| N.26½°W. | 21.82 | to the Government bridge 20 lks wide |
| N.19½°W. | 2.96 | to the place of beginning. |
| | | Land, level. |
| | | Soil, sandy loam, 2nd rate. |
| | | May 2nd 1890. |

GENERAL DESCRIPTION.

The land comprised within the limits of this survey, contains nearly every variety from bottoms and level prairie to high hills and the soil ranges from the best, to the worst kind. The soil on the bottom is composed mostly of black loam and sand, and that, on the level prairie is of rich black loam capable of producing abundant crops, without irrigation. The soil in the hills is covered with an abundant growth of good grasses with the exception of the summits which are gravelly and bare. Cottonwood, Elmwood, Cedar, timber is found along the Missouri and Niobrara Rivers, but in small quantities only.

The Island known as "Niobrara Island," is level the north point being subject to inundation.

It was covered with large cottonwood timber as the many stumps will show but in the last 5 years the Ponca Indians have felled and sold all that was worth anything for fuel the Island being mostly covered now with willows and brush with the exception of the south half in sec. 18 and the north half of sec. 19, upon which grows an abundant crop of nutritious grasses.

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406
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List of Names.

A list of the names of the individuals employed by Charles A. Nippel
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 additional survey
and meander lines in fractional Township No. 32 North, Range No. 6
West of the 6th Principal Meridian in the State of Nebraska, conse-
quent upon the donation of "Niobrara Island" to the village of Niobrara

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

Robert A. Hindman, Chairman
William R. Pratt, Chairman.
Joseph Kukral, Axeman.
Fritz A. Robert, Axeman.
John A. Wilson, Flagman.

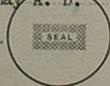
Final Oath of Assistants:

We hereby certify that we assisted Charles A. Nippel
U. S. ~~Deputy~~ Surveyor, in surveying all
those parts or portions of the additional survey and meander lines in fractional
Township No. 32 North, Range No. 6 West of the

Sixth Principal Meridian, in the State of Nebraska, 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 Commissioner of the
General Land Office

Robert A. Hindman, Chairman.
William R. Pratt, Chairman.
Joseph Kukral, Axeman.
Fritz A. Robert, Axeman.
John A. Wilson, Flagman.

Subscribed and sworn to before me this tenth
day of May A. D. 1890.



Vac Randa

Notary Public.

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Final Oath of U. S. Deputy Surveyor.

I, Charles A. Nippel, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from Lewis A. Groff, ~~U. S.~~ Commissioner of the General Land Office, bearing date of the twenty second day of March A. D., 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S.~~ Commissioner of the General Land Office, surveying manual, and the laws of the United States, surveyed all those parts or portions of the additional survey and meander lines in fractional Township No. 32 North, Range No 6 West of the Sixth

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 regulations, the special written instructions of the ~~U. S.~~ 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.

Charles A. Nippel.
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this tenth day of May A. D., 1890.



Vac Randa
Notary Public

Approval.

Office of the U. S. Surveyor General,

The foregoing field notes of the survey of _____, 18____.

_____ 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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79

Department of the Interior,
General Land Office,

Washington, D. C., February 7 1891.

The foregoing field notes of the additional survey and meander lines in fractional township No. 32 north, range No. 6 west of the 6th Principal Meridian, Nebraska, executed by Charles A. Nippel, U. S. surveyor, under his instructions from this office, dated March 22, 1890, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Lewis A. Groff,
Commissioner
and ex officio surveyor general for Nebraska.

W.C. m.m.s.

Department of the Interior,
General Land Office,

Washington, D. C., February 7 1891.

I certify that the foregoing transcript of the field notes of the additional survey and meander lines in fractional township No. 32 north, range No. 6 west of the 6th Principal Meridian, Nebraska, has been correctly copied from the original notes.

Lewis A. Groff
Commissioner
and ex officio surveyor general for Nebraska.

GENERAL LAND OFFICE • ORIGINAL FIELD NOTES

BOOK NUMBER

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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.