

BOOK 230

Book No 12

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Field Notes

OF THE SURVEY OF THE

SUBDIVISION LINES

- OF -

Township 16 N. Range 19 E.

Gila and Salt River Base and Meridian

ARIZONA.

By M. N. Grant D. S.

under contract dated Aug 7th 1882.

Survey commenced June 22nd 1883.

Survey completed June 25th 1883.

No-230

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Township 16 21

Range 19 8

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Gila and Salt River, Arizona.

ARIZONA.

Township 16 North, Range 19 East
Gila & Salt River Meridian.

For preliminary oaths
see Book No 1.

Survey commenced June 22nd 1883
Survey completed June 25th 1883

Survey made with Reits Improved Solar
Compasses, nearly new, and in first
rate order. Made by Otto Fennel
of Cassel Germany in
1881.

Th. 16. N. R. 19 E.

cho G. & S. R. M.

From the Cor. to Sec. 35 + 36. on S. B. of
Th. recently established & one. From
North Int. Secs. 35 + 36.
Va 13° 30' E.

descend.

40.00 Set a post 3 ft long 2 ins. diam with marked
stone, 12 ins, in the ground for Cor
marked 1 S. on N. face, dug pits 18 x 18 x 12
ins. N. and S. of post 5 $\frac{1}{2}$ ft. dist. and raised
a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base. around
post.

40.00 Set a post 4 ft. long 4 ins. square, with marked
stone, 12 ins, in the ground for Cor, to Secs,
25-26-35+36 marked T. 16 N. S. 25 on
N. E. R. 19 E. S. 36 on S. E. S. 35 on
S. W. and S. 26 on N. W. face, with / notch
/ on S. and / notch - on E. edges, dug
pits 18 x 18 x 12 ins. in each Sec., 5 $\frac{1}{2}$ ft. dist.
and raised a mound of earth 2 ft. high. 4 $\frac{1}{2}$ ft.
base. around post.

Surface rolling rocky

Soil 3° or 4° late

grass fair

Scattering Juniper & River Brush.

Sp. 16. N. R. 19 E.
cls G. & S. R. M.

East, on a random line bet. Secs. 25+36
Va. 13° 30' E.

descend gradually

5.00 Cross Wash rocks. N. & descend grad.
35.00 Th of Spur low. N. 10° W. & descend
40.0 0 Set temporary $\frac{1}{4}$ See. Cor.
80.2 1 Intercept E. B. of Th 41th sec. of
Cr. to Secs 25-30-31-36, ^{just below} ^{1/4 mile} from
S. 89° 42' W. on a true line bet. Secs. 25+36,
Va. 13° 30' E.

40.10 Set a Sand stone, 20 x 16 x 8 ins., 14 ins.
in the ground for $\frac{1}{4}$ See, Cor, marked $\frac{1}{4}$ on N.
face. dug pits 18 x 18 x 12 ins. E. and N.
of stone 1 ft. dist. and raised a mound of earth
1 ft. high. 3 $\frac{1}{2}$ ft. base. alongside.

80.2 1 Th Cor. to Secs. 25-26-35+36.
Surface rolling & rocky
Soil 3° & 4.5 ate
Grass Fair
Scattering Juniper & Pinon Brush.

Th. 16 M. R. 19 E.

ch G. & S. R. M.

North lat. Sec. 28 & 26

ra. 13° 30' E.

descend gradually

40.00 Set a sand stone 24 x 8 x 4 ins. 18 ins.
in the ground for 4 sec. Cor. Marked
 $\frac{1}{4}$ on N face, and raised a mound
of stones alongside. Pits impracticable

80.00 Set a sand stone 20 x 6 x 4 ins., 14 ins. in
the ground for Cor. to Secs. 23-24-25-26 marked
with 2 notches on S. and 1 notch - on E. edges,
dug pits 18 x 18 x 12 ins. in each Sec., 5 $\frac{1}{2}$ ft.
dist. and raised a mound of earth 2 ft. high.
4 $\frac{1}{2}$ ft. base. alongside.

Surface rolling

Soil 3' rate

Wazing fair

Scattering Juncus,

Th. 16 N. R. 19^E,
Chs. L. & S. R. M.

East, on a random line bet. Secs. 24 & 25
Va. 13° 30' E.

Descent gradually

- 24.90 Cross wash 25 lbs. Mid C. N 10° E. + descent.
 40.00 Set temporary $\frac{1}{4}$ Sec. Cor.
 45.00 Th Divide soft, lt. brs. N 20° E. + descend
 50.25 Intended S. B. of Th. 27 lbs. S. of Cor.
Just established by my
 topees. 19-24-25+50. Shines down
 S. 89° 4' N. on a true line bet. sec. 24 & 25.
 Va. 13° 30' E.

50.12 Set a post 3 ft. long 3 ins. diam with marked
 stone, 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. and W. of post 5 $\frac{1}{2}$ ft. dist. and raised
 a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base around
 post.

50.25 Th Cor. to Secs. 23-24-25+26

Surface rolling

soil 3' rate

Grazing fair

Sealing Juniper.

Sp. 16 N. R. 19 E.

ch G. & S. R. M.

North cut Sec. 23 or 24

Va., 13° 30' E.

40.00

descent gradually

Set a post 3 ft. long 3 ins. diam with marked stone. 12 ins. in the ground for $\frac{1}{2}$ Sec. Cor, marked $\frac{1}{2}$ S. on N. face, dug pits 18 x 18 x 12 ins. N. and S. of post 5 $\frac{1}{2}$ ft. dist. and raised a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base around post.

56.73 Gross Wash 34 lbs. W. a. N 47° E. + descent

80.00 Set Saw stone 26 x 14 x 4 ins 18 ins.

in the ground for Cor to Sec. 13-14-23+

24 markers with 3' notches on S.

and 1 notch on E. edges. and raised a mound of stones alongside.

Pits impracticable.

Surface rolling

Soil 3' rate

Grazing good

Scattering Juniper in north.

Th. 16 N. R. 19 E.
chs G. & S. R. M.

East. on a random line cut. Secs. 13 + 24
Va. 18° 30' E.

Descent.

5.50 Grass road 28 lbs. wide Co. N 25° E. + ascend.
35.00 Th. Divide 45 ft. High brs. N. 50° E. + descent.
40.00 Set temporary $\frac{1}{2}$ sec. Cor.
80.66 Subsidiary E. P. of Th. 31 lbs. S. of Cor.
to Secs. 13-14-190 24, fence down
S. 89 $\frac{1}{2}$ N. on a true line cut Secs. 13024
Va. 18° 30' E.

40.05 Set a post 3 ft. long 3 ins. diam with marked
stone, 12 ins, in the ground for $\frac{1}{2}$ sec. Cor.
marked $\frac{1}{2}$ S. on N. face, dug pits 18 x 18 x 12
ins. E. and N. of post 5 $\frac{1}{2}$ ft. dist. and raised
a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base. around
post.

80.11 Th. Cor. to Secs. 13-14-23 + 24
Surface rolling
Soil 3 $\frac{1}{2}$ rate
Grazing good
Scatting Junipers

Twp. 16, N. R. 19 E.

Chs G. O. S. R. M.

North lat. Sec. 13 + 1/4.

Va. 13° 30' E.

ascend gradually

140.00

Set a post 3 ft. long 3 ins. diam with marked stone, 12 ins. in the ground for $\frac{1}{4}$ Sec, Cor. north of S. on N. face, dug pits 18 x 18 x 12 ins. N. and S. of post 5 $\frac{1}{2}$ ft. dist. and raised a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base. around post,

86.00

Set a post 1 ft. long 4 ins. square, with marked stone, 12 ins. in the ground for Cor. to Secs. 11-12-13 + 1/4 marked T. 16 N. S. 12 on N. E. R. 19 E. S. 13 on S. E. S. 14 on S. W. and S. 11 on N. W. face, with 4 notch - on S. and 1 notch - on E. edges, dug pits 18 x 18 x 12 ins. in each Sec., 5 $\frac{1}{2}$ ft. dist. and raised a mound of earth 2 ft. high. 4 $\frac{1}{2}$ ft. base. around post.

Surface rolling
soil 3 $\frac{1}{2}$ rate
grazing good

Th. 16 M. A. 1921.

cls G. & S. R. M.

Cash on a random line lat. Secs. 12 & 13.

ra. $18^{\circ}30' \text{ E}$,

Descent over rolling land.

40.00 Set temporary $\frac{1}{2}$ sec.

79.80 Intercept $\frac{1}{2}$ sec. E. P. of Th. 5 Chs. S. of Cor.
Secs. 12-7-18 & 13, ~~detected at 84 m~~ hence from
S. $89^{\circ}58' \text{ N.}$ on a true line lat. Secs. 12 & 13.

ra. $13^{\circ}30' \text{ E.}$

39.80 Set a post 3 ft. long 3 ins. diam with marked
stone. 19 ins. in the ground for $\frac{1}{2}$ sec. Cor.
marked $\frac{1}{2}$ S. on N. face, dug pits $18 \times 18 \times 12$
 E. and N. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base around
post.

Th Cor. to Secs. 11-12-13 & 14
Surface rolling
Soil 3° rate
Grazing good.

Sp. 16 N. R. 19 E.

ch. G. & S. R. M.

North, back lines. 11 or 12.

Va 1880 C.

Ascend gradually

40.00 Set a post 3 ft. long 3 ins. diam with marked stone, 12 ins, in the ground for $\frac{1}{2}$ Sec, Cor, marked $\frac{1}{2}$ S. on N. face, dug pits $18 \times 18 \times 12$ ins. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around post.

80.00 Set a Sand stone $17 \times 9 \times 4$ ins. 12 ins. in the ground for Cor. to lots. 1-2-11 & 12. Marked with 5 Notches on S. and 1 Notch on E. edges, and raised a mound of stone alongside.
Pits impractical.

Surface rolling

Soil 3rd rate

Grass good

Th. 16 N. R. 19 E.
chs G. & S. R. M.

East, on a random line bet. Secs. 1 + 12,
Va. 15° 30' E.,

ascend.

- 5.000 Top of low divide 70 ft. H. br. N. + dissens.
40.000 Set boundary to Lee. Cor.
80.46 Delin. E. P. of Th. 41 W. S. of cor.
just established ~~70~~ m. to Lee. 1-6-7 + 1/2, Then from
S. 89° W. on a true line bet. Secs. 1 + 12,
Va. 15° 30' E.

- 40.23 Set a Sand Stone 16 x 11 x 3 in. 11
ris. in the ground for $\frac{1}{2}$ Lee. Cor.
Marked to on N. face, and raised
a pyramid of stone alongside.
My cor. loses 1 ft. 11 in. ~~1/2~~.
It's impracticable.
Surface rolling
Soil 3²: ratio
grass good.

D. 16 N R. 20 E.

Chs G. & S. R. M.

North on a true line bet. Secs 1 + 2.

Va., 13° 30' E.

Descend gradually

40.00 Set a Sand stone, 14 x 8 x 4 ins., 9 ins.
in the ground for $\frac{1}{2}$ Sec, Cor, marked $\frac{1}{2}$ on N.
face, dug pits 18 x 18 x 12 ins. N. and S,
of st... $\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high $3\frac{1}{2}$ ft. base. alongside.

86.00 Intersect. 4" Sand, P. No. 132, Obs
N. of Stand Cor. to Secs. 35 + 36, recently
established by me.

Set a Post 4 ft. long 4 ins sq. with marked stone
2 ins in the ground for C.C. Cor. to Secs. 1 + 2 marked
C.C. 716 N. R. 19 E. on S. face, 1 on E. + S. 2 on
N. faces. south & north on E + S. noletus
on N. faces, dug pits 18 x 18 x 12 ins. S. E. + N.
of post $5\frac{1}{2}$ ft dist. and raised a mound
of earth 2 ft. high $4\frac{1}{2}$ ft. base around
post.

Surface slopes to North
Silt granular + 3:7 ratio
gray-green

I completely examined the adjustments of my solar
Compass today, particularly the latitude
and running apparatus and found them
correct.

M. N. Grant June 22, 1883,

Th. 16 N. R. 19 E.

chs G. & S. R. M.

From the Cor. to Secs. ²⁻³ 34 + 35 on S. B. of Th. recently established by one, I run North Lub. Secs. 34, + 35, Va 1880' E,

ascend gradually

40.00 Set a Sand Stone 16 x 8 x 4 ins. 11 ins. in the ground for $\frac{1}{4}$ Lie. Cor. Marker $\frac{1}{4}$ on N. face, and raised a mound of stone alongside. Pits impracticable

80.00 Set a Sand stone 14 x 8 x 6 ins, 9 ins. in the ground for Cor. to Secs. 26-27-34+35 marked with 1 notch - on S. and 2 notches on E. edges, dug pits 18 x 18 x 12 ins. in each Sec., 5 $\frac{1}{2}$ ft. dist. and raised a mound of earth 2 ft. high 4 $\frac{1}{2}$ ft. base. alongside.

Surface rolling

Soil 3rd rate
Drainage good.

Sp. 16. N. R. 19 E.

cls B. & S. R. M.

East, on a random line bkt. Secs. 26 + 35
Va. 13° 30' E

As cur gradually,

40.00 Set temporary T₄ Cor.

79.80 Intersect N. S. line 22 1/2 N. of Cor.
to Secs. 25 - 26 - 35 + 36. Then turn
N. 89° 51' N. on a true line bkt. Secs. 26 + 35

Va. 13° 30' C.

40.40 Set a post 3 ft. long 3 ins. diam with marked
stone, 12 ins, in the ground for $\frac{1}{2}$ Sec. Cor.
marked $\frac{1}{2}$ S. on N. face, dug pits 18 x 18 x 12
ins. E. and N. of post 5 1/2 ft. dist. and raised
a mound of earth 1 1/2 ft. high. 3 1/2 ft. base. around
post.

79.80 Th. Cor. to Secs. 26 - 27 - 34 + 35
Surface rolling
Soil 3¹/₂ - rate
Grazing good.

Sp. 16 N. R. 19 E.

ch G. & S. R. M.

North lat. lies. 26 + 27
Va., $15^{\circ}30' E.$

Descent gradually

40.00 Set a Sand Stone $18 \times 14 \times 4$ ins. 12 ins.
in the ground for $\frac{1}{4}$ lie. Cor. Marker
 $\frac{1}{4}$ on N. face and raised a mound
of stone alongside. Bits impractical.

75.00 Cross track 30 lks. wide by $11.46^{\circ} E.$. + around

76.40 Takish 75 lks. E. of Cabin

80.00 Set a Sand Stone $30 \times 24 \times 6$ ins. 20 ins.
in the ground for Cor. to Secs. 22 -

23 - 26 + 27. Marker with 2 noctes
on S. and 2 noctes on E. edges and
raises a mound of stone alongside.
Bits impractical.

Sand rolling rocky

Soil 3^o to 4^o talo

Grazing fair

Scatting Juniper along much

Th. 16 N. R. 19 E.

Chs. L. & T. R. M.

East on a random line bet. Secs. 23 + 26
Va., 18° 30' E.

Descent.

5.25 Cross Wash 25 lbs. wide ba. N. 20° E. + random
40.00 Set temporary to see Cor.
80.29 Mlusich N. + S. line 56 lbs. S. of Cor.
tides. 23-24-25+26 Three Iron
S. 89° 36' N. on a true line bet Secs. 23+26.
Va., 18° 30' E.

40.14 Set a post 3 ft. long 3 ins. diam with marked
stone, 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. $\frac{1}{2}$ and N. of post 5 $\frac{1}{2}$ ft. dist. and raised
a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base around
post.

80.29 Th. Cor. to Secs. 22-23-26+27

Surface rolling + rocky
Soil 3° + 4° pale

Grass fair

Scatting Juniper along Wash.

Th. 16 N. R. 19 E.

do G. T. S. R. M.

North Cut. Secs. 22 & 23,
Va. 18° 36' E.

Ascend gradually
Set a post 3 ft. long 3 ins. diam with marked
stone 19 ins. in the ground for 1 Sec, Cor,
marked 1 S on N, face, dug pits 18 x 18 x 12
ins N. 1 S. of post 5½ ft. dist. and raised
mound of earth 1½ ft, high 3½ ft. base. around
post.

Sec. 00
Set a post 4 ft. long 4 ins. square, with marked
stone, 12 ins, in the ground for Cor, to Secs,
14-15-22-23 marked T. 16 N. S. 1st on
N. E. R. 19 E. S. 23 on S. E. S. 22 on
S, W, and S, 15 on N, W, face, with 3 notch
es on S, and 2 notch es on E. edges, dug
pits 18 x 18 x 12 ins. in each Sec., 5½ ft. dist.
and raised a mound of earth 2 ft, high. 4½ ft.
base. around post.

Surface rolling

Soil 3' fat

Good grazing

Thick bunches of Juniper & Pinon Pines

Sp. 16 N. R. 19 E.

chi

G. & S. R. M.

East. on a random line bet. Secs. 14 + 28.

Va 1330 E.

Ascent gradually

34.14 Sp. Divide 75 ft high. brs. N. 20° E. + descen.
40.00 Set temporary $\frac{1}{4}$ sec. Cor.

80.21 Induced N. & S. line 18 ft. N. of Cor.
to Secs. 13-14-23 + 24 Three I ran
N.E. 95° 2' N. on a true line bet. Secs. 14 + 23

Va 13° 30' E

40.10 Set a sand stone, 18 x 0 x 6 ins., 12 ins.
in the ground for $\frac{1}{4}$ sec, Cor, marked $\frac{1}{4}$ on N.
from dug pits 18 x 18 x 12 ins. E. and N.
if stone $\frac{5}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft, high $3\frac{1}{2}$ ft. base alongside.

80.21 The Cor. to Secs. 14-15-22 + 23

Surface rolling

Soil 3? salt

Grazing good

Thick bunches of Juniper & Pinon brush.

Sp. 16 N. R. 19 E.
Chs G. & S. R. M.

North side. Secs. 14 & 15.
Va. 13° 30' E.

Descent gradually

15.00 Gas Wash 20 lms. mid Co. N 40° E. + descent
4000 Set a post 3 ft. long 3 ins. diam with marked
stone. 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. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around
post.

445.25 Sp of divide soft. High brs. N 40 E. + descent
80.00 Sets sand stone 24 x 11 x 6 ins. 18 ins.
in the ground for Cor. to Secs. 10-11-
14 & 15 markers with 14 notches on
S. & 2 notches on E. edges, and
raise a mound of stone alongside
Pits impossible to see.

Surface rolling

Soil 3? rate

Grazing good.

Sp. 16 N. R. 19 E.
S. O. S. R. M.

Each, on a random line bet. Secs. 11 & 14,
Va. 13° 30' E.

ascend gradually,

10.00 ft. of Divide 60 ft. high to. N. 20° E., + descends

40.00 feet temporary to Sec. Cor.

79.90 Instruct. N. O. S. line 40 ft. N. of Cor. to
Secs. 11-12-13 & 14 Three 2 mm
S. 89° 4' N. on a true line bet. Secs. 11 & 14

Va. 13° 30' E.

~~39.90-~~ Set a post 3 ft. long 3 ins. diam with marked
stone, 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. and N. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base around
post.

79.90 The Cor. to Secs. 10-11-14 & 15,
surface rolling
Soil 8' deep
Grazing good.

7.16. N. R. 19 E.

S. & S. R. M.

North lat. Lats. 10 + 11.

va 13° 8' E.

Descent gradually

~~4000~~
Set a post 3 ft. long 3 ins. diam with marked
stone, 12 ins, in the ground for $\frac{1}{4}$ Sec, Cor,
marked $\frac{1}{2}$ S. on N. face, dug pits 18 x 18 x 12
ins. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around
post.

45.15 Cross Draw Co. N.E. - ascent grad.
50.00 Set a Sand Stone 24 x 14 x 4 ins. 18
ins in the ground for Cor. to Lats.
2-3-10 + 11 Markers with 5 notches
on S. and 2 notches on E. edges.
and raised a mound of stone along
sides - Pits impracticable.
Surface nearly level
Soil 5° salt
grass good.

Th. 16 N. Q. 19 E.

chs

G. & S. R. M.

Est. on a random line bet. Secs. 2 + 11.
Va. 10° 30' E.

Ascend gradually,

40.00 Let temporary $\frac{1}{4}$ sec. Cor.
Instruct N. & S. line 17 lbs. S. of Cor.
to Secs. 1-2-11+12. Since I run
S. 89° 53' W. on a true line bet. Secs. 2+11.
Va. 10° 30' E.

39.85 Set a Sand stone, $16 \times 10 \times 2$ ins., 10 ins.
in the ground for $\frac{1}{4}$ sec. Cor, marked $\frac{1}{4}$. on N.
face, dug pits $18 \times 18 \times 12$ ins. E. and W.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. alongside.

79.71 The Cor. to Secs. 2-3-10 + 11.
Surface nearly level
Soil $3^{\frac{1}{2}}$ rate
grass good.

Th 16 N. R. 19 E.

chs G. O. S. R. M.

North on a true line lat. Secs. 20 & 3.

ra. $18^{\circ} 30' E.$

Ascend very gradually

4000 Set a Sand stone, $16 \times 9 \times 4$ ins., $\frac{1}{1}$ in.
in the ground for $\frac{1}{2}$ Sec, Cor, marked $\frac{1}{2}$ on N.
face dug pits $18 \times 18 \times 12$ ins. N. and S.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base alongside.

Descent gradual

Interv. 4th. Stand Par! North $3\frac{1}{2}$ fms. N.
of the stand. Cor. to Secs. $3\frac{1}{4}$ & $3\frac{3}{4}$ recently
established by me

Set a Sand stone $16 \times 10 \times 6$ ins., 1 in. in the
ground for the C. C. cor. to Secs. 2 & 3.
Marker C. C. with 2 notches on E. and 4
notches on N. edges, dug pits $18 \times 18 \times 12$
ins. S. $2\frac{1}{2}$ ft. of stone $6\frac{1}{2}$ ft. dist. and
raised a mound of earth 2 ft high $\frac{1}{2}$
ft base alongside.

Surface rolling
soil $\frac{3}{4}$ in. salt
Good grass.

I carefully examined the adjustments of my
Solar Compass today, particularly the latitude and
deviating apparatus, and found them correct.
A. H. Arnold Carpenter, June 22nd/1883.

Th. 16 N. R. 19 E.

ch. S. & S. R. M.

From the Cor. to Secs. 33 & 34 on the S. B.
 of Twp. recently established 4 mi. from
 North Cut. Secs. 33 & 34.

Va. 13° 30' E.

40.00 Set a Land stone 24 x 10 x 8 ins., 18 lbs.,
 in the ground for 1/4 sec. Cor. Marker
 1/4 on W. face, and raised a mound
 of stone alongside. Pts impractical.

50.00 Set a Land stone 20 x 12 x 4 ins., 14 lbs.,
 in the ground for Cor. to Secs. 27-
 28-33 & 34. Marker with 1 notch
 on S. & 3' notches on E. ends, and
 raised a mound of stone alongside.
 Pts impractical.

Surface soil,

Soil 8° rate

Grazing good

Galling Juniper Brush.

Sp. 16. N. R. 99 E.
chs G. & S. R. M.

East. on a random line bet. Secs. 27 & 34.
Va. 13° 30' E.

Descent gradually

34.35 Grass Wash 3.5 miles E. N. & a contour line.
40.00 Let Temporal $\frac{1}{4}$ Lee. Cor.

80.16 Intersect N. & S. line 30 miles S. of Cor.
Secs. 26-27-34 & 35 Three Iron
S. 89° 44' 3" N. on a fence line bet. Secs. 27 & 34
Va. 13° 30' E.

40.08 Lita Limestone $30 \times 16 \times 7$. into 20 in.
in the ground for $\frac{1}{2}$ Lee. Cor. Market
 $\frac{1}{2}$ on N. face, and raised a mound
of earth alongside. Pits impractical.

80.16 The Cor. to Secs. 27-28-33-34

Surface rolling

Soil 3² orate

Grazing good

Scatting Juniper Brush

Th. 16 N. R. 19 E.

chs G. & S. R. M.

North lat. Secs. 27+28.

Va. 13°30' E.

Descent gradually

40.00 Set a Sand stone 28x8x4 ins., 20 ins.
in the ground for 2 Sec. Cor, Marker
 $\frac{1}{4}$ on N. face & raised a mound of
stone alongside. Pits impracticable

50.00 Set a Sand stone 20x8x4 ins., 14 ins. in
the ground for Cor, to Secs. 21-22-27+28 marked
with 2 notches on S. and 3 notches on E. edges,
dug pits 18 x 18 x 12 ins. in each Sec., 5 $\frac{1}{2}$ ft.
dist. and raised a mound of earth 2 ft. high
4 $\frac{1}{2}$ ft. base. alongside.

Surface rolling

Soil 3rd rate

Grazing fair

There is a Cabin or tank in this Sec. 36 Q.

South 75 lks. west of Cor to Secs.

22-23-26+27

Sp. 16 N. R. 19 E.
ch's G. & S. R. M.

Each on a random line bet. Secs. 22 + 27.
Va. 13° 30' E,

Descent gradually
40.00 Set temporary 4 Lee. Cor.

79.81 Intersect N. & S. line 100ks. N. of Cor.
todes. 22-23-26 + 27 fence from
N. 89° 56' N. on a true line bet. Secs. 22 + 27
Va. 13° 30' E.

39.90 Set a post 3 ft. long 3 ins. diam with marked
stone, 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. and W. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around
post.

79.81 Th Cor. to Secs. 21-22-27 + 28
Surface rolling
Soil 5? rate
Draining fair

Th. 16. N. R. 19 E,
ch' G. & S. R. M.

North but Secs. 21 + 22,
Va., 133° E,

Ascend gradually,

- 1100 Top of Divide 30 ft. high brs. N 35° E. + descns.
 4000 Set a post 3 ft. long 3 ins. diam with marked
 stone, 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. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised
 a mound of earth $1\frac{1}{2}$ ft, high. $3\frac{1}{2}$ ft. base. around
 post.
- 80.00 Set a post 4 ft. long 4 ins. square, with marked
 stone, 12 ins, in the ground for Cor, to Secs,
~~15-16-21+22~~ marked T. 16 N. S. 15 on
 N. E. R. 19 E. S. 22 on S. E. S. 21 on
 S, W, and S, 16 on N, W, face, with 3 notch
 es on S, and 3 notch es on E. edges, dug
 pits 18 x 18 x 12 ins. in each Sec., $5\frac{1}{2}$ ft. dist.
 and raised a mound of earth 2 ft, high. $4\frac{1}{2}$ ft.
 base. around post.

Surface rolling
 Soil 3^o salt
 Grazing good.

Th. 16 N. R. 19 E.

ch. G. & S. R. M.

Back on a random line but. Secs. 15+22.
va. 13° 30' E.

Ascend gradually,

20.00 Th divide 38 ft. high. brs. 21.40° E., + descent
40.00 Let temporary to Sec. Cor.

70.11 cross Flash 16 lbs. Mile Co. N.E., + ascends grad.

79.93 Intuseth N. & S. line 23 lbs. N. of Cor. to
secs. 14-15-22 + 23. Since true
N. & S. on a true line but. Secs. 15+22.

va. 13° 30' E.

89.97 Set a Sand stone, 28 x 12 x 6 ins., 20 ins.
in the ground for $\frac{1}{4}$ Sec, Cor, marked $\frac{1}{4}$. on N.
face, dug pits 18 x 18 x 12 ins. E. and W.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. alongside.

79.93 Th Cor. to Secs. 15-16-21+22.
Surface rolling
Soil 3^o oats
Grazing good.

Sp. 16 N. R. 19 E.

ch. G. & S. R. Mn.

North Cut. Secs. 15 + 16

Descent gradually Va. 13° 30' E.

31.00 Cross Ranch 30 k. N. W. 26° E. + descent.

40,000 Set a Sand stone, $2\frac{1}{4} \times 10 \times 6$ ins., 18 ins.
 in the ground for $\frac{1}{4}$ Sec, Cor, marked $\frac{1}{4}$. on N.
 face, dug pits $18 \times 18 \times 12$ ins. N. and S.
 of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. alongside.

80,000 Set a Sand stone $2\frac{1}{4} \times 4 \frac{1}{4} \times 6$ ins., 18 ins. in
 the ground for Cor, to Secs, 9-10-15+16 marked
 with X notch $\frac{1}{2}$ on S. and 3 notches on E. edges,
 dug pits $18 \times 18 \times 12$ ins. in each Sec., $5\frac{1}{2}$ ft.
 dist. and raised a mound of earth 2 ft. high.
 $4\frac{1}{2}$ ft. base. alongside.

Surface rolling
 Soil 3' rate

Grass good

Scattering Juniper along washes.

Th. 16 N. R. 19 E.

chs G. & S. R. M.

East, on a random line bet. Secs 10 & 15
va. 13° 30' E.

descend gradually

16.00 Cross Wash 2 miles. Divide Co. N. & ascend
40.00 Set temporary $\frac{1}{4}$ sec. Cor.
53.00 Th. Divide 45 ft. high br. N. & descend grad
65.00 Cross Draw Co. N. & ascend gradually
80.15- Intercept N. of S. line 16 miles. S. of Cor. to
Secs. 10-11-14-15. Three from
S 89° 5' N. on a true line bet Secs. 10 & 15
va. 13° 30' E.

40.07 Set a sand stone, $\frac{1}{4} \times 10 \times 7$ ins., 9 ins.
in the ground for $\frac{1}{4}$ sec, Cor, marked $\frac{1}{4}$. on N.
face, dug pits $18 \times 18 \times 12$ ins. E. and W.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. alongside.

80.15 Th. Cor. to Secs 9-10-15-16.

Surface rolling

Soil 3°. rate

Grazing good

Seating Juniper along washes.

N. 16° N. R. 19 E.

chs G. & S. R. M.

North Lub. Secs. 9 & 10.

Va., 13° 30' E.

Descent gradually,

40000

Set a post 3 ft. long 3 ins. diam with marked stone, 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. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around post.

Do. 00

Set a sand stone $6\frac{1}{2} \times 2\frac{1}{2} \times 5$ ins, 11 ins. in the ground for Cor, to Secs, 3-4-9+10 marked with 5 notches on S. and 3 notches on E. edges, dug pits 18 x 18 x 12 ins. in each Sec., $5\frac{1}{2}$ ft. dist. and raised a mound of earth 2 ft. high. $4\frac{1}{2}$ ft. base. alongside.

Surface rolling

Soil 3? rate

Grass good.

Th. 16 N. R. 19 E.
chs G. & S. R. M.

East. on a random line but. less. 3+10.
Va. 13°30' E.

Descend gradually

14.10 Cross Sag Co. N. & ascent.

40.00 Let temporary $\frac{1}{4}$ sec. Cor.

80.26 Detached N. & S. line 5 gds. S. of Cor.
to decs. 2-3-10 & 11. Three Drivs
S. 89°35' W. on a true line but. less. 3+10.

Va. 13°30' E.

40.13 Let a Saw Stone 19+12x5 ins. 12 ins.
in the ground for $\frac{1}{4}$ sec. Cor. Works
from N. face, and raises a mound
of stone alongside. Bits impractical.

80.26 Top Cor. ⁸⁻⁴⁻¹⁰ Surface slightly falling
soil 3? rate
grass good.

Sp. 16 N. R. 19 E.
ch^s G. & S. R. M.

North in a tree line butches. 304.

Va 18° 30' E.

descends gradually

11000 Sit a Sand Stone 14x12x3 ins. 9 ins
in the ground for 2 Sec. Cor. Marker
2¹/₂ on N. face, and raised a mound
of Stone alongside Pits impracticable
dug out of Hand Par. North 13.390 ha. N.
of those Sand Cor. 10 sec. 33+34
recently established by me.

187.12 Sit a Rock 4 ft long 4 ft wide sq. with marker
stone, 2 ins. in the ground for the S. C.
Av. to Secs. 3+4. Marker C. C., Sp. 16 N.
R. 19 E. on S. Sec. 3 on E. side 5.4 on N.
faces. with 3 notches on E. N. faces.
are pits 18x18x12 ins. 8 L. on N. f.
back 6 ft. deep. dug against a snow
of earth, about 10 ft. high. 14 ft. back

Surface rolling
soil 3¹/₂ to 4
good grass
scatting Junipers.

I carefully examined the adjustment of my Survey
Compass today, particularly the latitude and
merid. appurtenances, and found them correct.

M. N. Grant. June 23rd 1883.

Th. 16 N. R. 19 E.
cts G. & S. R. M.

From the Cr. to Lces. 32+33 on the S. B. of Th.,
recently established by me I now
North lat. Lces. 32+33.

Va. 13° 36' E.

ascend gradually
24.00 Descent grad.
40.00 Set a Sand stone 18x18x4 ins. 12 ins.
in the ground for G. Cr. Marker
from D. face, and raised a mound of
stone alongside. Pits impracticable
80.00 Set a Sand stone 22+10x4 ins 16 ins. in
the ground for Cr. to Lces. 28-29-
32+33. Marked with 1 notch on S.
and 4 notches on E. edges, and
raised a mound of stone alongside.
Pits impracticable.

Surface rolling

Soil 4 feet

Scattering Juniper Brush.

Sp. 16 N. R. 19 E.

Chs G. & S. R. M.

East. on a random line but les. 28033.

Va, 13°30' E.

Ascent gradually

20.00 Sp Ridge 100 ft. high to N. & S. & descent
40.00 Lit temporary to the Cor.79.78 Intusel N. & S. line 4 ft. less. S. of
Cor. to les. 27-28-33034. Three more
S. 89°39' N. on a true line but. les. 28033.

Va 1330 E.

39.87 Lit a sand stone 36 x 8 x 4 ins. 24
ins. in the ground for $\frac{1}{4}$ sec. Cor.
Marked $\frac{1}{4}$ on N. face, and raised
a mound of stone alongside
Its impracticable

Th Cor. to les. 28-29-32 to 33.

Surface valley rocky

Soil 4 rate

Grazing poor

Scattering Juniper Brush

Sp. 16 N. R. 19 E.
Chs G. & S. R. M.

North lat. lies. 28° 29'.
Va. 13° 30' E.

Descent gradually,

40.00 Set a Sand stone, $8 \frac{1}{2} \times 10 \times 3$ ins., $\frac{1}{2}$ in. in
the ground for $\frac{1}{2}$ Sec, Cor, marked $\frac{1}{2}$. on N.
face, dug pits $18 \times 18 \times 12$ ins. N. and S.
of stone $5 \frac{1}{2}$ ft. dist. and raised a mound of earth
 $1 \frac{1}{2}$ ft. high. $3 \frac{1}{2}$ ft. base. alongside.

44.00 Ascent gradually,

64.00 Descent grad.

80.00 Set a Sand stone $3 \frac{1}{2} \times 5 \times 4$ ins., $2 \frac{1}{4}$ ins. in
the ground for Cor, to Secs, 20-21-28-29 marked
with 2 notches on S. and 4 notches on E. edges,
dug pits $18 \times 18 \times 12$ ins. in each Sec., $5 \frac{1}{2}$ ft.
dist. and raised a mound of earth 2 ft. high.
 $4 \frac{1}{2}$ ft. base. alongside.

Surface rolling

Soil 3? sati

grass good.

Ch

Th. 16 N. R. 19 E.
G. & S. R. M.

East on a random line bet. Secs. 21 + 28.
Va, $13^{\circ}30' E.$

Ascend.

30.00 Th Spur 25 ft high. W. N. 20 E. + descend

40.00 Let temporary to Sec. Cor.

79.60 Intercept N. + S. line 61 lbs S. of Cor.
to Secs. 21 - 22 - 27 + 28. Then down
S. $89^{\circ}36' N.$ on a true line bet. Secs. 21 + 28.
Va, $13^{\circ}30' E.$

39.80 Let a sand stone 14x8x6 ins. gives
in the ground for to Sec. Cor. Worked
41 on N. face, and raised a mound
of stone along side. Bits impracticable

79.60 Th Cor. to Secs. 20 - 21 - 28 + 29
surface rolling
Soil 3^o - water
marshy ground.

Th. 16 N. R. 19 2.

Obs G. & S. R. M.

North. lat. Secs. 20 & 21.
Va, $13^{\circ} 30' E.$

Descent gradually

- 40.00 Set a Sand stone, $20 \frac{1}{2} \times 12 \times 4$ ins., 8 ins.
in the ground for $\frac{1}{4}$ Sec, Cor, marked $\frac{1}{4}$. on N.
face, dug pits $18 \times 18 \times 12$ ins. N, and S,
of stone $5 \frac{1}{2}$ ft. dist. and raised a mound of earth
 $1 \frac{1}{2}$ ft, high. $3 \frac{1}{2}$ ft. base. alongside.
- 55.00 Cross Wash 2 o Cks. Mid C. N. $75^{\circ} E.$ t ascert.
- 80.00 Set a post 4 ft. long 4 ins. square, with marked
stone, 12 ins, in the ground for Cor, to Secs,
16-17-20 & 21 marked T. 16 N. S. 16 on
N. E. R. 19 C. S. 21 on S. E. S, 20 on
S, W, and S, 17 on N, W, face, with 3 notch
20 on S, and 4 notch 20 on E. edges, dug
pits $18 \times 18 \times 12$ ins. in each Sec., $5 \frac{1}{2}$ ft. dist.
and raised a mound of earth 2 ft, high. $4 \frac{1}{2}$ ft.
base. around post.

Surface rolling

Soil 3° rate

Grass good

Scatting Juniper

Sp. 16 N. R. 19 E.
chs G. & S. R. M.

East on a random line bet. Secs. 16+21,
va 18°30' E,

Ascend gradually

- 44.00 Set temporary $\frac{1}{4}$ Lee. Cor.
 55.00 Sp. divide 40 ft. high brs. N. & descend.
 73.00 Cross Hatch 30 chks. Middle $\frac{1}{4}$ Lee N 6°E. & ascend
 80.26 Intersect N. S. line 35 chks. S. of Cor.
 to Secs. 15-16-21+22. True Iron
 $S. 89^{\circ} 45' N.$ on a true line bet. Secs. 16+21,
 va 13°30' E.

44.13 Shabotan stone 16 x 12 x 4 ins. 11 ins.
 in the ground for $\frac{1}{4}$ Lee. Cor. Matrix
 $\frac{1}{4}$ on N. face, and raised a mound
 of stone alongside. Its impracticable

80.26 Th Cor. to Secs. 16-17-20+21

Surface rolling

Soil 3% slate

Grass good

Scatting Juniper.

Y. 16 N. R. 19 E.

chs b. & s. R. M.

North lat. Sec. 16 & 17,

va. $13^{\circ} 30' E.$

descend gradually

18.25 Cross Wash 20 hrs. ride to N 40 E. & ascend
40.00 Set a post 3 ft. long 3 ins. diam with marked
stone, 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. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $2\frac{1}{2}$ ft. base. around
post.

68.18 Th Divide 38 ft. brs. N $60^{\circ} E.$ & descend

80.00 Set a sand stone ~~20 x 10 x 6 ins.~~, 12 ins. in
the ground for Cor, to Secs 8-9-16 + 17 marked
with 4 notches on S. and 4 notches on E. edges,
dug pits 18 x 18 x 12 ins. in each Sec., $5\frac{1}{2}$ ft.
dist. and raised a mound of earth 2 ft. high.
 $4\frac{1}{2}$ ft. base. alongside.

Surface valley

Soil 3³/4 rate

Grazing good
scatting Juniper

Sp 16 N. R. 19 E.,

Chs G. & S. R. M.

E

East on a random line but Sec. 9 + 16
Va. 13° 30' E.

Descent gradually

30.40 Cross Wash 400 ft wide Co. N 50° E. + ascent
400.00 Let temporary $\frac{1}{4}$ sec. cor.
47.28 Th Divide 40 ft high bds. N.
79.91 Induced N. of L. line 19 Chs. N. of Cor.
to Secs. 9-10-15 + 16. Three down
N. 89° 37' W. on a true line but Sec. 9 + 16
Va. 13° 30' E.

39.96 Set a Sand stone, 16 x 9 x 7 ins., 11 lbs.
in the ground for $\frac{1}{4}$ sec. Cor. marked $\frac{1}{4}$. on N.
face, dug pits 18 x 18 x 12 ins. E. and W.
of stone 5 $\frac{1}{2}$ ft. dist. and raised a mound of earth
1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base. alongside.

79.91 Th Cor. to Secs. 8 - 9 - 16 + 17.

Surface rolling

Soil 3' rate

Grazing good

Scatting Juniper Brush

Sp. 16 N. R. 19 E.
Chs G. O. S. R. M.

North lat. lies 8 + 9
Va $13^{\circ} 26' E.$

Descent gradually

40.00 Set a Scand stone, $14 \times 7 \times 5$ ins. 9 ins.
in the ground for 1 Sec, Cor, marked $\frac{1}{4}$ on N,
face, dug pits $18 \times 18 \times 12$ ins. N. and S.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft, high. $3\frac{1}{2}$ ft. base. alongside.

80.00 Set a post 4 ft. long 4 ins. square, with marked
stone, 12 ins, in the ground for Cor, to Secs,
4-5-8+9 marked T. 16 N. S. $\frac{1}{4}$ on
N. E. R. 19 E. S. 9 on S. E, S, 8 on
S, W, and S, \checkmark on N, W, face, with \checkmark notch
on S, and 4 notch \checkmark on E. edges, dug
pits $18 \times 18 \times 12$ ins. in each Sec., $5\frac{1}{2}$ ft. dist.
and raised a mound of earth 2 ft, high. $4\frac{1}{2}$ ft.
base. around post.

Surface rolling
Soil 3^o 7 ate
Grazing good.

Sp. 16 N. R. 19 E.
Ch G. & S. R. M.

Cast. on a random line bet Secs. 4 + 9
Va. 13° 30' E.

Descend gradually

40.00 Set temporary $\frac{1}{4}$ Sec. Cor.

79.61 Inward N.W.S. line 16 W. S. of Cor.
to Secs. 3-4-9+10. Thence I run
S. 89° 53' N. on a true line bet. Secs. 4+9
Va. 13° 30' E.

39.80 Set a post 3 ft. long 3 ins. diam with marked
stone, 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. and N. of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around
post.

79.61 Th Cor. to Secs. 4.5.8+9.
Surface rolling
Soil 3^o rate
Grazing good

Sp. 16 N. R. 19 E.

ch G. & S. R. M.

North, on a true line betw. Secs. 4 & 5.
Va. $13^{\circ} 36' E.$

Descent gradually

40.00 Set a Sand stone, $16 \times 14 \times 4$ ins. 11 ins.
in the ground for $\frac{1}{2}$ Sec, Cor, marked $\frac{1}{2}$ on N.
face, dug pits $18 \times 18 \times 12$ ins. N. and S.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{4}$ ft. base. alongside.

~~87.40~~ ~~Marked 4 Sand Pits North of 36th chs. N. of
Stand. Cor. to Secs. 32 & 33, recently
established by me.~~

Set a Post. 4 ft. long 4 ins. sq. with marked stone
 12 ins. in the ground for C. Cor. to Secs.
4 & 5. marker C.C. 1, 16 N. R. 19 E., on S.
54 on. E and S. 5 on N. faces. with 4 notches
on E. & 2 notches on N. faces. dug pits
 $18 \times 18 \times 2$ ins. S. E. $\frac{1}{2}$ ft. of post. $5\frac{1}{2}$ ft.
dist. and raise a mound of earth 2 ft.
high $4\frac{1}{4}$ ft base around Post.

Surface rolling
Soil $3\frac{1}{2}$ feet
grass good.

Completely examined the adjustment of my Solar
Compass today, particularly the latitude and
reciprocal apparatus, and find them
correct.

Tp. 16 N. R. 19 E.

Chs G. & S. R. M.

5-6

From the Cor. to Secs. 31 & 32. on S. B. &
Th. recently established by me I run
North line. Secs. 31 & 32.

Va. 13^o 30' E.

Descent gradually,

44.000 Set a Sand stone 17 x 11 x 5 ins., 12 ins.
in the ground for $\frac{1}{4}$ See, Cor, marked $\frac{1}{4}$. on N.
face, dug pits 18 x 18 x 12 ins. N. and S.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. alongside.

54.000 Enter Juniper Brush

80.000 Set a Sand stone 20 x 9 x 4 ins., 12 ins.
in the ground for Cor. to Secs.
29-30 - 31 & 32 Marked with
1 Notch on S. and 5 Notches on
E. edge, and raised a mound of
Stone alongside. Pits impossible
surface owing
soil 6° water
grass poor
Heavy Juniper Brush

Sp. 16 N. R. 19 E.

Ch. G. & S. R. M.

Cash. on a random line but. Secs. 29 + 32,
ra. $1^{\circ} 30' E.$

Descent gradually

40.00 Set temporary 1/2 sec. Cor. + descent grad.
61.00 Cross Wash 10 hrs. wide Co. N. $13^{\circ} W.$, + descent grad.
80.27 Intersect N. + S. line 16 hrs N. of Cor. 60
Secs. 28-29-32 + 33. True form
 $7.89^{\circ} S.$ $W.$ on a true line but. Secs. 29 + 32
ra. $1^{\circ} 30' E.$

40.14 Set a Sand stone 18 + 13 + 4 ins. 12 ins. in
the quar for 1/2 sec. Cor. Marks 1/2
on N. face, and raised a mound
of stone along-side Pitt impracticable

80.27 In Cor. to Secs. 29-30-31 + 32

Surface slightly rolling

Soil 3² ratio

Grass good

Scatting, Juniper

M. n. Grank

June 25. 1883.

Sp. 16 N. R. 19 E.
ch G. & S. R. dn.

Nest, on a random line lat. Secs. 30 & 31
va. $13^{\circ} 30'$ E.

descend gradually

40.00 Set temporary $\frac{1}{4}$ sec. cor.
53.00 Cross Wash, 5 lbs wide C. N. & ascend
Inverted ~~W~~^{By P} line 21 lbs. N. of cor
to Secs. 25-30 - 31 & 36, nearly es-
tablished by me. Three I run
 $11.89^{\circ} 51' E.$ on a tangent but. Secs. 30 & 31
va. $13^{\circ} 30'$ E.

38.79 Set a Sandstone $22 \times 17 \times 3$ in 15
ins. in the ground for $\frac{1}{4}$ sec. cor.
Marked $\frac{1}{4}$ on N. face, and around
a mound of stone alugando.

Pits impracticable
Secs. 29, 30, 31 & 32

Surface rolling

Soil Sandy & dry

grass fair

Scattering Juniper Brush

A. Arnold Commissioner Jan 25, 1883

Sp. 16 N. R. 19 E.

ch. G. & J. R. M.

North lat. Sec. 29 + 30

Ra. 13° 30' E.

descends gradually

40.00 Set a post 3 ft. long 3 ins. diam with marked stone, 12 ins, in the ground for $\frac{1}{4}$ Sec, Cor, marked $\frac{1}{4}$ S. on $\frac{1}{4}$ face, dug pits 18 x 18 x 12 ins N and S. of post $5\frac{1}{2}$ ft. dist. and raised a mound of earth $1\frac{1}{2}$ ft, high $3\frac{1}{2}$ ft. base. around post.

50.00 Set a post 4 ft. long 4 ins. square, with marked stone, 12 ins, in the ground for Cor, to Secs, 19-20-29-30 marked T. 16 N. S. 20 on N. E. R. 19 E. S. 29 on S. E, S. 30 on S, W, and S, 19 on N, W, face, with 2 notch es on S, and 5 notch es on E. edges, dug pits 18 x 18 x 12 ins. in each Sec., $5\frac{1}{2}$ ft. dist. and raised a mound of earth 2 ft, high $4\frac{1}{2}$ ft. base. around post.

Surface rolling

Tall 4 rats

grass fair

Scattering Juniper brush

Th 16 N. R. 19 E.

chs G. & S. R. M.

East on a random line but Secs. 20 + 29
va. 13° 30' E.

Descent gradually

- 40.00 hit temporary T. line Cor.
 60.00 cross Wash rocks N. of C. N. 35° E. random
 80.34 intersect N. of S. line 22 lbs. S. of Cor.
 to Secs. 20 - 21 - 28 + 29 three from
 S. 89° 1' N. on a true line bet. Secs 20 + 29
 va. 13° 30' E.

40 17

Set a post 3 ft. long 3 ins. diam with marked
stone, 12 ins, in the ground for $\frac{1}{2}$ Sec, Cor,
marked $\frac{1}{2}$ S. on N. face, dug pits 18 x 18 x 12
ins. E. and $\frac{1}{2}$ of post $5\frac{1}{2}$ ft. dist. and raised
a mound of earth $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. around
post

80 34 the Cor. to Secs. 19 - 20 - 29 + 30

Surface rolling

Soil 3° rate

Grazing good

Scattered Juniper Brush

M. N. Wash June 25 - 1883.

Sp. 16 N. R. 19 E.

Ch. G. & S. R. M.

Post on a random line bkt. Secs. 19 & 30.
Va. 13° 30' E.

Ascent

- 40.00 Set temporary to the Cor.
 57.71 Cross Wash 19 lbs Hds Co. N.W.
 78.60 Intersct W. B. of Sp. 100 lbs N. of Cor.
 to Secs. 19 24-25 & 30 recently es-
 tablished by me. Three iron
 N. & 9 1/3 E on a true line bkt. Secs. 19 & 30.
 Va. 13° 30' E.

- 38.60 Set a post 3 ft. long 3 ins. diam with marked
 stone, 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. and N. of post $5\frac{1}{2}$ ft. dist. and raised
 a mound of earth $1\frac{1}{2}$ ft, high $3\frac{1}{2}$ ft. base. around
 post.

78.60 Th Cor. to Secs. 19-20-29-30

Surface walling

Sgtl 3rd date

Draying over & Sealing Juniper Brush
 A. H. Arnold Carpenter June 25, 1883.

Th 16 N. R. 19 E.
Chs G. & S. R. M.

North lat. Sec. 19 or 20.
Va. 15° 30' E.

As and gradually

~~40000~~
Set a post 3 ft. long 3 ins. diam with marked stone, 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. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised a mound of earth $1\frac{1}{2}$ ft, high $3\frac{1}{2}$ ft. base. around post.

~~80.00~~
Set a post 4 ft. long 4 ins. square, with marked stone, 12 ins, in the ground for Cor, to Secs, 17-18-19 or 20 marked T. 16 N. S. 17 on N. E. R. 19 E. S. 20 on S. E. S. 19 on S. W. and S. 18 on N. W. face, with 3 notch es on S. and 5 notch es on E. edges, dug pits 18 x 18 x 12 ins. in each Sec., $5\frac{1}{2}$ ft. dist. and raised a mound of earth 2 ft, high $4\frac{1}{2}$ ft. base. around post.

Surface rolling
soil & gravel
erasing good
Scattering Juniper.

Tp. 16 N. R. 19 E.
Chs G & S. R. M.

East. on a random line bet Secs. 17 + 20

Vad $3^{\circ} 30' E.$

Descent gradually

440.00 Lb temporary to Sec. Cor.

75.00 Cross Wash 25 lbs. Mid Co. N.E. + sand

79.83 Muster H. & S. line 44 lbs. S. of Cor. to
Secs. 16-17-20 + 21. Then down
S. $89^{\circ} 41' N.$ on a true line bet. Secs. 17 + 20

Vad $3^{\circ} 30' E.$

39.91 Set a sand stone 16x12x6 ins 11 ins.

in the ground for to Sec. Cor. Marker to
Sec. N. face, and raises a mound of stone
along side. Bits impracticable

79.83 The Cor. to Secs. 17-18-19 + 20

Surface rolling

lvd 3° sole

Moving good

Scattering Junipers

M. M. Gravel

Jne 25 1883.

Th. 16 N. R. 19 E.

Chs G. & S. R. M.

Post on a random line bet. Secs. 18+19
ra. 1 $3^{\circ}30' E$

Descent

24.40 Cross trash 16 lvs. wide Co. N. 18° E. + descent

40.00 Set temporary to Sec. Cos.

63.00 Th. divide soft high ls. N. 11° W. + descent

79.18 Inverted st. P. of Th. 18 lvs. S. of Cr.
to Secs. 13-18-19-24 nearly set by me, from
S. 89 $34'E$. on a true line bet Secs. 18+19

ra. 1 $3^{\circ}30' E$.

39.18 Set a post 3 ft. long 3 ins. diam with marked
stone, 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 and N of post 5 $\frac{1}{2}$ ft. dist. and raised
a mound of earth 1 $\frac{1}{2}$ ft, high. 3 $\frac{1}{2}$ ft. base. around
post.

79.18 Th. Cr. to Secs. 17-18-19+20
Surface rolling
soil 3' rate

grass good

Off. Arnold Carpenter

June 25. 1883.

Sp. 16 M. R. 19 E.
chs G. & S. R. M.

North. lat. Sec. 17 018
ra. 13° 30' E

descend gradually

4000 Set a Sand stone, $17 \times 12 \times 4$ ins., 12 ins.
in the ground for 1 Sec, Cor, marked $\frac{1}{4}$ on N.
face, dug pits $18 \times 18 \times 12$ ins. N. and S.
of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base. alongside.

8000 Set a Sand stone $6 \times 8 \times 6$ ins., 11 ins. in
the ground for Cor, to Secs, 7-8-17 1/8 marked
with 4 notches on S. and 5 notches on E. edges,
dug pits $18 \times 18 \times 12$ ins. in each Sec., $5\frac{1}{2}$ ft.
dist. and raised a mound of earth 2 ft. high.
 $4\frac{1}{2}$ ft. base. alongside.

Surface rolling

Soil 3" rate

grass good

Th, 16 N. R. 19 E.
chi G. & S. R. M.

East. on a random line bet. Secs. 8+17
va, 13° 30' E.

Descent gradually

- 40.00 Set temporary E. See. Cor.
115.00 Th Divide 60 ft high. In N. 35° E. + descent
80.53 Intercept N. & S. line 28 ft. S. of cor.
to Secs. 8-9-16+17 Three I run
S. & 9° 48' N. on a true line bet. Secs. 8+17
va, 13° 30' E.

- 40.26 Set a sand stone, 16 x 10 x 7 ins. 11 ins.
in the ground for $\frac{1}{4}$ See, Cor, marked $\frac{1}{4}$ on E.
face, dug pits 18 x 18 x 12 ins. E. and W.
of stone 5 $\frac{1}{2}$ ft. dist. and raised a mound of earth
 $1\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base. alongside.

- 80.53 The Cor to Secs. 7-8-17+18
surface rolling
Soil 8' rate
grass good
m n. brush
Mar 25. 1873.

Th. 16 N. R. 19 E.
Chs G. & S. R. M.

Nest on a random line but. Secs. 7 + 18
va. 13° 30' E.

Descent

200 Cross Wash 100 ft. N. of C. N. 30° E. + descent
4000 Sit temporary to Sec. Cor.
42.50 Th Divide 40 ft. high, b.s. N. 25° E. + descent
79.69 Intervet W. B. of Th 9 lbs N. of Cor to
Secs 7-12-13 + 18 recently estab.
lashed by me Three Irons
N. 89° 56' E. on a true line but Secs. 7 + 18
va. 13 30 E.

39.69 Sit a Sand Stone 14 x 8 x 6 ins q ris in the
ground for 4 Sec. Cor. Marked $\frac{1}{2}$ on N.
face, and raises a mass of stone
along side. Bits impracticable.
79.69 Th Cor. to Secs 7-8-17 + 18.

Surface rolling
soil 3^o rate

grass grows

Scattering Juniper

At Arnold Comparison June 25. 1883,

Th. 16 N. R. 19 E.

chs G. & S. R. M.

North but lies 70° S.

Va 13° 30' E.

Desert

10.00 Cross Wash 15 lks. mid. C. N. S. R. base

Set a post 3 ft. long 3 ins. diam with marked
 stone, 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. N. and S. of post $5\frac{1}{2}$ ft. dist. and raised
 a mound of earth $1\frac{1}{2}$ ft, high. $3\frac{1}{2}$ ft. base. around
 post.

53.64 Cross Wash 19 lks. mid. C. N. 78° N.

Set a post 4 ft. long 4 ins. square, with marked
 stone, 12 ins, in the ground for Cor, to Secs,
 5-6-7 & 8 marked T. 16 N. S. 5° on
 N. E. R. 19 E. S. 8° on S. E, S. 7° on
 S. W. and S. 6° on N. W. face, with 5° notch
 so on S. and 5° notch so on E. edges, dug
 pits 18 x 18 x 12 ins. in each Sec., $5\frac{1}{2}$ ft. dist.
 and raised a mound of earth 2 ft, high. $4\frac{1}{2}$ ft.
 base. around post.

Surface rolling

Soil 3² in. to

Grassy good.

Th. 16 N. R. 19 E.

chs Gt S. R. M.

Each, on a random line Sub. Secs. 5 + 8.
Va. 133° E.

Ascent gradually,

1800 ft Divide 40 ft. high br. N. & descends grad.

4000 set temporary 4 sec. Cor.

8031 Intersect N. & S. line 65 ft. S. of Cor.
6 Secs 4 - 5 - 8 - 9. True I true
S 89° 32' W. on a true line but Secs. 5 + 8.

Va 133° E.

40.15

Set a post 3 ft. long 3 ins. diam with marked
stone, 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. and W. of post 5 $\frac{1}{2}$ ft. dist. and raised
a mound of earth 1 $\frac{1}{2}$ ft. high. 3 $\frac{1}{2}$ ft. base. around
post.

8031

The Cor. to Secs. 5 - 6 - 7 + 8.

Surf acc is rolling

Soil $\frac{3}{4}$ rate

Grazing good.

Carefully examined the adjustments of
my solar Comp acc today, particularly
the latitude and reviewing apparatus,
and found them correct.

M. H. French June 25. 1883.

Th. 16 N. R. 19 E.
chs G. & S. R. M.

Mot. on a random line bet. Secs. 6 & 7.
va 1330 E.

Ascend gradually

400.00 Set temporary $\frac{1}{4}$ Sec. Cor.

444.50 Descent gradually

79.65 Intercept N. P. of Th. 35 lbs. N. of Cor.
to Secs. 1-6-7-12. Recently es-
tablished by me. Three iron
N. 89° 45' E. on a true line bet. Secs. 6 & 7

va 1330 E,

39.65

Set a post 3 ft. long 3 ins. diam with marked
stone, 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. and N. of post 5 $\frac{1}{2}$ ft. dist. and raised
a mound of earth 1 $\frac{1}{2}$ ft, high. 3 $\frac{1}{2}$ ft. base. around post.

79.65 Th. Cor. to Secs. 5-6-7 & 8.

Surface rolling

Soil 3° soft

Grazing good.

Sp. 16 N. R. 19 E.

chs G. & S. R. M.

North, on a ~~road~~^{true} line betw. Secs. 5 + 6.

Va. 13° 30' E.

Ground grassy
Set a ~~large~~ stone, 20 x 10 x 11 ins., 15 lbs.

in the ground for $\frac{1}{2}$ Sec, Cor, marked ~~on~~ on N face, dug pits 18 x 18 x 12 ins. N and S of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth

$1\frac{1}{2}$ ft. high. $3\frac{1}{2}$ ft. base alongside.

Distance 4: Sp. 17 N. R. 19 E. North 135° 9 Chs. N. of Stand Cor. to Secs. 3 + 5, recently established by me.

Set a same stone 10 x 9 x 4 ins. 10 lbs. in the ground for the C. Cor. to Secs. 5 + 6. Marks C.C. with 5 Notches on E. + 1 notch on N. edges, dug pits 18 x 18 x 12 ins. S.E. + N. of stone $5\frac{1}{2}$ ft. dist. and raised a mound of earth $2\frac{1}{2}$ ft. high $4\frac{1}{2}$ ft. base alongside.

Surface rolling

Soil 3rd rate

Dray, good

I carefully examined the adjustments of my Solar Compass today, particularly the latitude and reversing apparatus, and find them correct. A.H. Arnold Compassman June 25. 1883.

Sp. 16 N. R. 19 E.

G. & S. R. M.

General Description

The Surface of this Township is rolling.
The Soil is rocky in the South East
Sandy in other parts.

It is covered with a fine growth of
grass.

There is plenty of Juniper in the South
East parts but very little in other parts.

There is a Cabin, and some Water
in a Tank in Sec. 27.

To final oaths see Books
No 13.

BOOK

63

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U. S. Surveyor General's Office,

Tucson, Arizona, July 17 1884

The foregoing Field Notes of the Survey of the

Subdivision Lines of
Township 16 North
Range 19 East

Of the Gila and Salt River Base and Meridian, Arizona, executed by

M. W. Grant

Deputy Surveyor, under his contract of the

Seventh

day of

August

, 1884, having been critically examined and the necessary corrections and explanations made, the said Field Notes and the surveys they describe

are hereby approved.

Royal E. Johnson
Surveyor General.