

1740

BOOK 1740

no 3

# Field Notes

1740

1740

OF THE SURVEY OF

*Retracing of the  
Boundary line bet.  
Arizona & New Mexico  
bet. 181<sup>st</sup> & 198<sup>th</sup> Mile  
Corner.*

*Gila and Salt River Base and Meridian*

## ARIZONA.

By *A. P. Johnson* D. S.

*under contract dated June 8, 1882.*

*Survey commenced July 15, 1882.*

*Survey completed July 17, 1882.*

1740

*Comp*

1740

BOOK 1740

D. 117, R. 31 E.

D. 110, R. 31 E.

D. 97, R. 31 E.

See Book 4210 for this mon.

D. 57, R. 31 E.

180

181

22

182

20

183

20

184

19

185

17

186

16

187

15

188

14

189

13

190

12

191

11

192

10

193

9

194

8

195

7

196

6

197

5

198 M.

4

40.07 ch.

Retracing Boundary bet. New Mexico and  
Arizona.

Survey made with Burt's  
Patent Improved Solar  
Compass, nearly new, and  
in first rate order made  
by Otto Brunel of Bessel  
Germany in 1881.

Before proceeding with the  
Survey of the Boundary  
line, I made a change  
of 5 minutes in the  
latitude arc of my solar  
compass by subtracting  
same from the reading  
previously given and at  
noon verified and corrected  
same by observation on the  
sun, I also tested instrument  
by reversing I took the latitude

## Retracing Ry line Cal. Ariz &amp; New Mexico

Casino

and found it to be  $34^{\circ} 06'$  North

From the C.C. to Sp. 8 & 9 N.  
 R. 31 E on 2<sup>d</sup> Standard just  
 recently established which  
 is a Lava stone set firmly  
 in the ground, marked S. C. C.  
 S. 8 & 9 N. or 3 & 34. on W.  
 S. 34 on N. and  
 S. 3 on S. faces, with  
 pits N. W. & S. of cor.  
 Thence I run North  
 on Boundary line.

Cor.  $19^{\circ} 41'$  E.

ascend

24.80 Top of Ridge to N. E. S. W.  
and descend

40.97 To a Point 8 lbs E. of Cor

Retractions. Riv. Linchets. Ariz. New Mexico

chains

No. 198. which is a Lava  
stone 16' 9 ins. in stone mound  
marked "Trigo" on N.

N. M. on E. 198 on N. faces.  
and 32 W. L. on South side,  
I rebuild mound, to be  
of proper size.

The return course is S 7° E'

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From the 198th Mile cor.  
I continue North. on a  
random line.

Cor. 72° 36' E'

Descent

20.00 Cross Coyote Wash 40 lbs. in the  
course N. 55° W. and ascend  
31.70 Enter timber, br Et W.

BOOK 1140  
\* Note: See Book 4210 for reconstruction in 1931  
of the 197 mile mon.

Retracings. By line bet Ariz. and New Mexico

Chains  
78.15 Enter Mesa, by N. W. and  
S. E.

80.00 To a point 2 lks E. of cor.  
\* No. 197. on Boundary line  
which is a Lava stone 13 x 10 in.  
set in stone mound, marked  
197" on N. "32° W. S." on S.  
"Ariz." on W "N. M." on E faces.  
Rebuild mound  
Return course is S 1' E;

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From cor. No 197. Continue  
North on a random line  
Cor. 13° 10' E.

Ascend

37.35 Top of ridge by N. W. and S. E.  
and descend

Retracing. By line bet. Ariz. and New Mexico

chain

52.15 Top of spur to E & W. and  
descend gradually.

79.70 To a point 8 lbs N. of cor. 196.  
on Boundary line, which is a  
Lava stone 8x6 ins. marked  
196 on N. 32' W. L. on S.  
Ariz. on W. " N. M. in E face  
Return course is S. 3' W.

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From the 196<sup>th</sup> mile cor.  
I continue North on a rand-  
om line

Var.  $13^{\circ} 10' E$ .

Descend

19.80 Cross Road to New Mexico  
course N. 80' W. and S. 80' E.

31.70 Cross low depression

## Retracings By line bet. Ariz and New Mexico

Chairs

to N. W. and S. E.  
and ascend abruptly.

79.60 To a point 8 lks W. of Cor.  
No. 195 which is a Lava  
stone 20 x 12 ins. in a stone  
mound, marked  
"195" on N. "32° W. L. on S.  
"Ariz" on W. "N. M." on E. sides.  
I rebuilt mound.

Return course is S. 3' W.

From the 195<sup>th</sup> Mile Cor.  
I continue North on a  
random line

Var. 130° 20' E.

ascend abruptly

12.15 Top of Ridge to N. E. & S. W.



## Retracing. By line bet. Arizona + New Mexico

chains

and descend

26.10 Cross gulch 5 lks wide,  
course S. W. and ascend57.60 Top of Mesa to N. Ex S. W.  
and descend

77.90 Leave timber to E. W.

88.05 Top point 5 lks West of cor.

No 194, which is a Lava stone  
10 x 10 ins sq, in stone mound marked"194" on N.  $32^{\circ}$  W.  $2^{\circ}$  on S.

"Ariz." on W. and N. M. on E. faces

Return course is S.  $2^{\circ}$  W.

From the 194<sup>th</sup> Mile cor.  
I continue North in a road-  
one line,

Cor.  $13^{\circ} 20' E$ .

## Retracings By line bet. Ariz. and New Mexico

chains

descend abruptly

79.94 To a point 13 lks West of cor.  
No. 193. which is a Lava  
stone 12 x 10 ins. in mound  
of stone marked.

'193' on N.  $32^{\circ}$  W. S. on S.  
'Ariz' on W. & N. Mi. on E. faces.  
Rebuilt mound

The return course is  $S 6^{\circ} W$ .

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From the 193<sup>th</sup> Mile cor.  
I continue North on a  
random line

Var.  $10^{\circ} 30' E$

across Mesa

8006 To a point 20 lks West of cor.  
No 192. on Boundary line

## Retracings By line bet. Arizona + New Mexico

Chino

which is a Lava stone  $12 \times 8$   
ins. set in mound of stone,  
marked

"192" on N. "32" W. L. on S.

"Ariz" on W. + "N M" on E. faces  
I rebuild mound

Return course is  $59^{\circ}$  W.

~~Before proceeding further I add 51 minutes to the latitude  
arc of my Solar Compass, and corrected same at noon.~~

From the 192<sup>nd</sup> Mile cor.  
I continue North on a  
random line

Var.  $12^{\circ} 20'$  E.

Ascend gradually

79.80 To a point 14 lbs W. of Cor.

No 191. which is a Lava stone  
 $14 \times 10$  ins. set in stone mound  
marked

## Retracing. By line bet. Arizona New Mexico

chains

"191" on N.  $32^{\circ}$  W. L. on S.  
 Ariz! on W. and N. M. on E. face,  
 I rebuild mound, to be of  
 proper size.

Return course is S.  $7^{\circ}$  W.

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From the 191<sup>st</sup> Mile Cor.  
 I continue North on a sand-  
 on line.

Cor.  $10^{\circ} 20'$  E!

Ascend gradually

24.53 cross road to New Mexico  
 course N.  $70^{\circ}$  E! and S.  $70^{\circ}$  W.

24.63 To a point 8 lbs E! of old  
 stone mound on line I  
 rebuild same

80.38 To a point 8 lbs East of

## Retracing By line bet. Ariz. and New Mexico

chain

Cor. No. 190. on Boundary  
line. which is a Lava stone  
10x6 ins. in a mound of stone  
marked '190 on N.  $32^{\circ}$  W. S. in S.  
'Ariz' on W. and 'N. Mex' on E. faces.  
Return course is  $S 3^{\circ} E$ .

July 16<sup>th</sup> 1882.

From the 190<sup>th</sup> Mile cor.  
I continue North on a  
random line,

Cor.  $10^{\circ} 24' E$ .

across Mesa.

39.75 Top of ridge to E. & W. and  
descend.

79.48 To a point 6 lbs E. of cor. No  
189. on Boundary line

## Retracings By line, bet. Ariz. and New Mexico

Lains

which is a Lava stone, 10 x 5  
 ins. in a stone mound, marked  
 "189." on N.  $32^{\circ}$  W. L. on S.  
 "Ariz." on W. & "N. M." on E. faces.  
 I rebuilt mound to be of  
 proper size,  
 The Return course is S.  $3^{\circ}$  E!

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From the 189<sup>th</sup> Mile Cor.  
 Continue North on a sand-  
 on line

Var  $13^{\circ} 21' E!$

Ascend over numerous small  
 spurs.

42.53 Top of Ridge to N. E. & S. W.  
 and across Mesa.

55.53 Leave Mesa and descend

## Retracing Big line bet. Arizona &amp; New Mexico

Chains

- 80.77 To a point 35 lbs W. of cor.  
N. 188. which is a Lava  
stone, 12 x 8. in earth mound  
with pits. marked.  
"188" on N. 32° W. L. on S.  
Ariz' on W. and N. M' on E. face.  
I redig pits and rebuild mound.  
The Return course is S. 15° W.
- 

From the 188<sup>th</sup> Mile cor.  
I continue North on a random  
line,

Var.  $130^{\circ} 55' E.$

Descent.

- 32.94 Cross Wash 20 lbs wide, course  
N. W. and ascend.  
79.20 To a point 20 lbs East of cor.

## Retracings By line bet. Arizona &amp; New Mexico

chain

No. 187. on Boundary line,  
 which is a Lava stone 18+10 ins.  
 in stone mound, marked  
 '187' on N.  $32^{\circ}$  W. & on S.  
 'Arizona W. and N. M.' on E. face.  
 To build mound to be of proper  
 size.

The Return course is.  $S. 11^{\circ} E.$

From the 187<sup>th</sup> Mile cor.  
 I continue North on a random  
 line,

Var.  $13^{\circ} 45' E.$

Ascend

61.55 Top of ridge to  $N. 20^{\circ} E.$  &  
 $S. 20^{\circ} W.$  and descend

79.43 To a point 27 lks W. of



## Retracings By line bet. Arizona &amp; New Mexico

chains

Cor. No. 186. which is a  
 Lava stone 157 8 ins. in earth  
 mound with pits, marked  
 "186" on N.  $32^{\circ}$  W. L. on S.  
 "Ariz" on W. and "N. M." on E. faces.  
 Filled pits and rebuild mound,  
 The Return course is S.  $12^{\circ}$  W.

Before proceeding with  
 these retracings I made  
 a change of 5 minutes in  
 the latitude arc of my  
 Solar compass, by adding  
 same, to the reading  
 previously given, and at  
 noon verified and corrected  
 same, by observation on the

## Retracings. By line bet. Arizona &amp; New Mexico

chain

Now I also further tested  
instrument by reversing.  
I took the latitude and  
found it to be  $34^{\circ} 16'$  North  
From the 186<sup>th</sup> mile cor.  
I continue North on a  
random line,

Var.  $13^{\circ} 45' E$ .

- 8.39 Cross low depression  
course E & W. and descend.
- 52.58 Top of spur to N.  $70^{\circ} E$  &  
 $S 70^{\circ} W$ . and descend.
- 73.41 Cross low Sag to E & W. and  
ascend
- 78.68 To a point 10 lbs West of  
cor. No. 185. which is a Lava  
stone 14 x 6 ins. in mound  
of earth with pits, marked

## Retracings. By line bet. Arizona &amp; New Mexico

Chains

185<sup>th</sup> on N.  $32^{\circ}$  W. L. on S.  
 'Ariz' on W. and 'N. M.' on E. faces.  
 I redig pits and rebuild mound  
 The Return course is S  $4^{\circ}$  W.

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From the 185<sup>th</sup> Mile cor. I  
 continue North. on a random  
 line,

Var.  $13^{\circ}$  9' E!

Ascend

79.55 To a point 17 lbs west of cor.  
 No. 184. which is a Granite  
 stone 14 x 8 ins. in earth mound  
 with pits. marked  
 '184' on N.  $32^{\circ}$  W. L. on S.  
 'Ariz' on W. & 'N. M.' on E. faces.  
 I redig pits & rebuild mound

## Retracings By line bet. Ariz. and New Mex.

Chains

The return course is  $S^{\circ} 7' W.$

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From Cor. No 184 I continue  
North on a random line  
Var.  $13^{\circ} 9' E.$

12.34 Cross Wash 12 lbs wide, course  
N.  $70^{\circ} E.$  and ascend.

49.26 To a point 22 lbs W. of Cor.  
No 183. which is a Sandstone  
104 ft. in circumference, marked  
"183" on N.  $32^{\circ} W.$  L. on S.  
"Ariz" on W. & N. M. on E. face.  
I re-build mound  
The return course is  $S. 9' W.$

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From the 183<sup>d</sup> mile cor.

## Retracings By line bet. Ariz. and New Mexico

chains

Continue North on a  
random line,Var.  $13^{\circ}15' E.$ 

Ascend

4.28 Top of spur to N. Ex S. W. and  
descend41.58 Cross Wash 2000 wide, course  
N.  $85^{\circ} E.$  and ascend.77.08 Top of Ridge to N. Ex S. W.  
and descend79.91 To a point 17 lbs West. of  
Cor. No. 182, which is a Sand-  
stone 100 Cms. in earth mound  
with pits marked $182^{\circ}$  on N.  $32^{\circ} W.$   $2^{\circ}$  on S.

'Ariz' on W. and 'N. M.' on E. face.

Rebuild pits &amp; rebuild mound

The return course is S.  $7^{\circ} W.$

## Retracing By line bet. Ariz. and New Mexico

chains

From the 182<sup>d</sup> mile cor.  
I continue North on a  
random line.

Var.  $13^{\circ} 15' E'$ 

Descent

16.03 Cross Wash 15 lbs widy course  
N.  $65^{\circ} E'$  and ascend over  
numerous small spurs.  
to cor. N. E & S. W.

60.84 Top of spur to N.  $70^{\circ} E'$  &  
S.  $70^{\circ} W.$  and descend.

79.75 To a point 19 lbs West of  
Cor. No. 181. which is a  
Lava stone  $12 \times 5$  ins. in  
earth mound with pit.  
marked '181' on N.  $32^{\circ} W.$  L on S.  
'Ariz.' on W. and N. M on E. faces  
Fredig pits and rebuilt

Retracings. By line bet. Ariz. and New Mexico

Chains

would be of proper size.

July 17. 1882.

U. S. Surveyor General's Office,  
Tucson, Arizona, January 12, 1883

The foregoing Field Notes of the survey of

Retracings of the Boundary line  
between Arizona and  
New Mexico bet. 181<sup>st</sup> 198<sup>th</sup>  
mile corners.

of the Gila and Salt River Base and Meridian, Arizona,  
executed by A. P. Johnson,  
D. S., under his contract of the 8<sup>th</sup> day of  
June, 1882, having been critically ex-  
amined and the necessary corrections and explanations  
made, the said Field Notes and the surveys they de-  
scribe, are hereby approved.

J. W. Robbins  
Surveyor General.