

Cupboard 27
 Shelf 4
 No. 59
 1 book

Colo 1877
 Meander Bk. 4 a
 Camp 35 30 to 30 30
 West Sp. 100 to 100
 Top Sta. 64 to 65
 East Sta. p. 35

Engineer Department, U. S. Army.

Book No. 318, 1877.

TOPOGRAPHICAL RECORDS.

Party No. Section.

From Camp No. 35, at Uncompahgre Riv.

To Camp No. 39, at mouth Winemucca C.

Atlas Sheet No.

Lt E. Bergland In charge of party.

Geographical Surveys West of 100th Meridian.

647496 (112.7)

1250
11999
10560
13295
10000
349360

74256
9274

146260
1827

1250

7500
891937
1114

7750
896

77500 (122)

3000 (22)
2400

1190
1690
1906

1100
1081

27334
93

2496
10000
191

75000
120

69136
2114

210000 (916)
20
1280

75000
4360
4360

14572
18

4232
153
1096
10000
13295

2161
4232

111

2090
2090

318 - 1877

can/r 35 - 10 - 39 at mouth of
to Mosca pass = 0.54 } Winemucca Cr.

L. Nell.

Poppy Stations in Logy hills
Three pt "

Meander + durovel Sta's each Logy-

19-100

12) 12,800
 0

8) 12,888
 1,611

12) 7000 65838
 100
 96
 040

14) 8000 0888
 72
 80

18) 17,575
 2,171

8) 19,833
 2,447

12) 25000 208
 24
 100

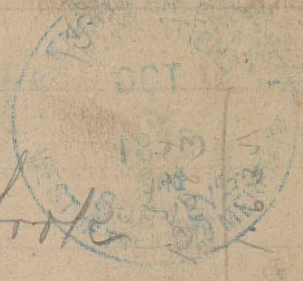
8) 8,208
 1,026

8) 19,833
 2,380

12) 40000 37
 36
 90
 64
 60

8) 16,833
 2,304

12) 10000 083
 96
 40



4 June 9th fr
 Sta From Mudely to Big Lucky Creek
 From To Bearing this Red

XIIa	XIII	86°	86
XIIIa	XIIIa	117°	30
XIIIa	XIV	82°	29
XIV	Camp	99°	3.19

June 10th Camp 9 to 10
 Camp from Big Lusk Creek to Sandy de Cords - Ok

From	To	Bearing	Dis Red
Camp	1	218°	0.51
1	1a	241°	.21
1a	2	199°	.25
2	3	216°	4.17
3	4	183	2.70
4	4a	128	.12
4a	5	217°	.13
5	6	227°	.53
6	7	230°	.61
7	7a	186½	.26
7a	8	255°	.33
8	9	210°	.64
9	9a	219°	.39
9a	10	141°	.80
10	10a	190°	.20
10a	11	176°	.39
11	11a	207°	.24
11a	12	190°	.08
12	13	190°	.26
13	14	224°	.37
14	15	242°	.37
15	15a	239°	1.24

June 10th

6 Camps from Big Looking creek to Sangre de Cristo creek

From	To	Bearing	Dis Red
15a	16	199°	.41
16	16a	231°	.61
16a	17	199°	.57
17	Camp		.39

June 11th Camp 10 to 11
 Camp from San Pedro Cristo-creek to Fort Gardiner
 From Sta Lo Bearing N 10 Red

Camp	a		
a	b	194°	.89
b	2a	224°	.40
2a	2	175°	.20
2	2a	200°	.46
2a	3	204°	.93
3	3a	158°	.68
3a	4	190°	1.36
4	4a	197°	.64
4a	5	165°	.22
5	5a	175°	.33
5a	6	202°	.36
6	7	222°	1.39
7	8	214°	.74
8	8a	284°	.25
8a	9	237°	.22
9	9a	117°	.00
9a	10	245°	.29
10	11	240°	.76
11	11a	230°	.98
11a	12	207°	.89
12	12a	217	1.20
12a	13	199°	1.17

Trapon Creek 0.33 from Sta 5

35
23

2
1
1
4

June 10.

From	To	Bearing	Distance	
Camp	San yre de Cristo creek			to Fort Garland
13	13a	49°	.166	
13a	14	14.30'	.652	
14	Camp	360°	1.46	at Fort Garland

June 14th - 1874

Camp from Fort Garland to Trinchera Creek

From	To	Bearing	Dis Recd
Camp	1	274°	0.73
1	2	124°	0.42
2	3	252°	0.79
3	4	234°	8.78
4	4a	232°	1.12
4a	5	241°	.53
5	5a	232°	1.37
5a	6	227°	1.77
6	Camp	215°	1.33

June 15th 1874

Camp from ^{Sta} Trinchera Creek to Conejos Creek
 From Sta Lo Bearing to Red

Camp	a	2100	1.176'
a	b	2040	.152
b	ba	2180	.666
ba	2	2000	.334
2	2a	2350	.191
2a	3	2172	.002
3	4	2370	.500
4	4a	2200	1.597
4a	5	2250	1.096
5	5a	2630	.728
5a	6	2360	.828
6	7	2330	1.238
7	Camp	2460	.386

June 16th 1877

Camp from Conejos Creek to Clamora Cr
Sta

From Lo Bearing to Red

Camp	1	218°	472
2	2a	255°	2.767
2a	2	272°	2.767
2	2a	171°	.219
2a	3	187°	438
3	4	210°	.512
4	5	272°	1.317
5	5a	275°	.366
5a	6	222°	1.089
6	6a	245°	.391
6a	7	250°	.1791
7	7a	135°	.312
7a	8	236°	.310
8	8a	170°	.484
8a	9	255°	1.868
9	10	304°	.727
10	10a	273°	.163
10a	11	230°	.6572
11	11a	245°	1.352
11a	12	285°	1.352
12	Camp	256°	.193
12	Camp		

June 14th
 Survey from Clauson creek up Gata Creek cañon and
 return to all North + Cinejoe road
 from sta 20 Bearing list Reduced

Casupa	2	348°	.25
1	2	297°	3.03
2	2a	306°	2.150
2a	3	145°	.963
3	3a	112°	301
3a	4	108°	2.415
4	4a	113°	.387
4a	5	69°	386
5	6	137°	.170

6	2	265°	.250
2	2a	246°	.096
2a	2	245°	.188
2	3	244°	.284
3	4	120°	.375
4	4a	260°	.152
4a	5	276°	.712
5	5a	276°	.786
5a	6	252°	.100
6	7	265°	.352
7	7a	245°	.217
7a	8	264°	.100

Line from sta
 2 to 6 up tributary
 of Gata Creek

sta 0

Line from line in
 Gata Creek proper

Continuation from preceding page, line from
 Alamosa Creek to Gata Creek -
 from ^{sta} To Bunny to Red

8	8a	263°	.198
8a	9	101°	.198
9	9a	128°	.200
9a	10	158°	.115
10	10a	120°	.250
10a	11	264°	.250
11	12	260°	

Gata Creek line
 proper-

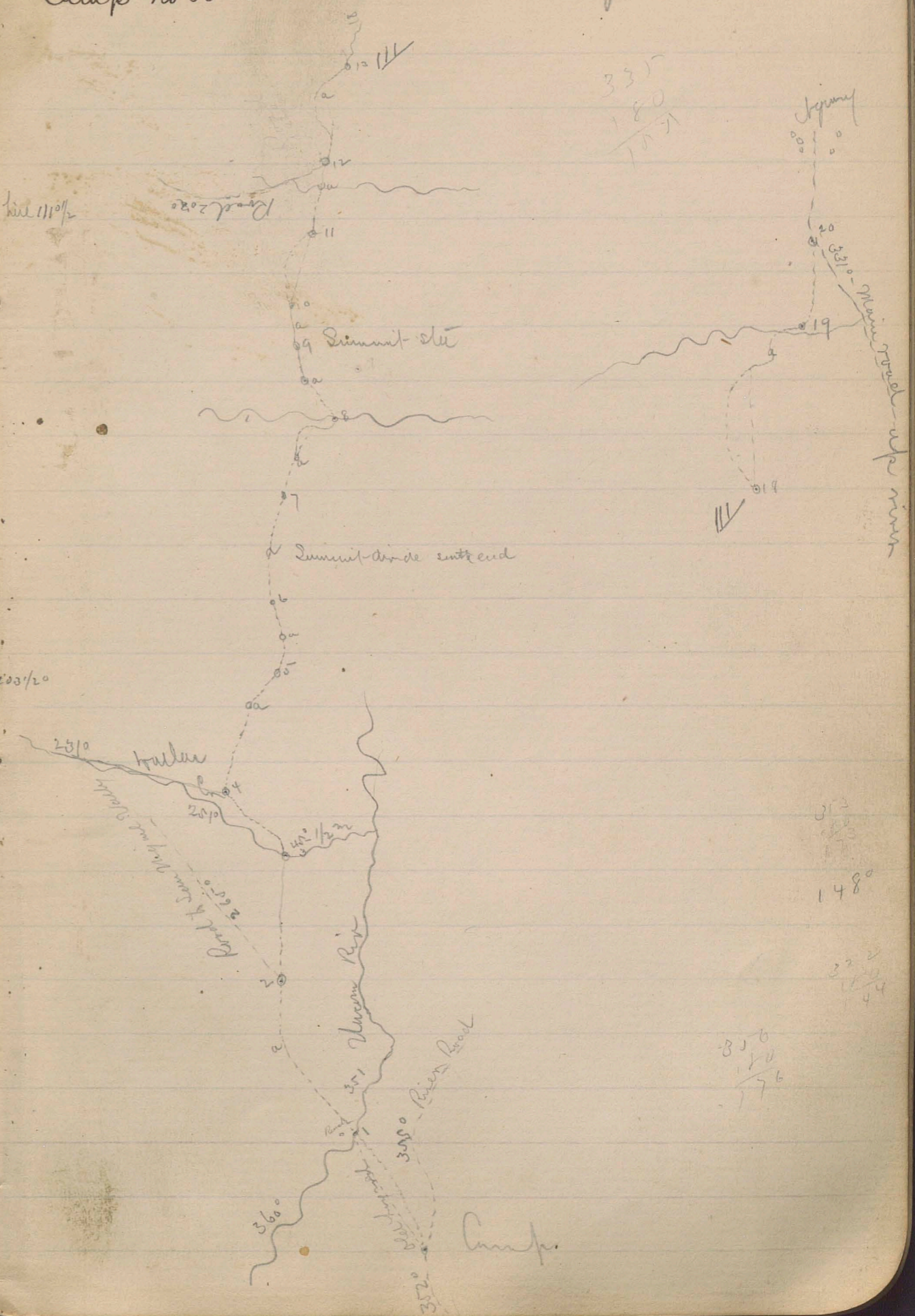
3	3a	263°	
3a	4	242°	1,136
4	4a	256	656
4a	5	222	1355
5	6	230°	1148
6	6a	210°	
6a	7	219°	

Continuation of
 Gata Creek line
 from sta 4 to
 bel Norte road

bel Norte road
 Course of road = 150°

4,204

Sta	Wise by Time & Vol	Bearing	Lat. & Remarks
Camp	8-22	302°	
1-8-20	1.20	305°	Crooping of Uncompagne mts
a-8-52	1.10	291°	Stone pipe 77° Bryan 81 1/2° Green Velvet hill 111 1/2° Mountain above camp 140°
2-8-59	.35	300°	
3-9-08	.25	328°	Crooping of Buller Cr
a-9-20	.10	250°	
4-9-39	.95	320°	Stone pipe 82° Bryan 89° Green Velvet hill 110° Sneffels 164°
a 9-45	.40	303°	
5-9-58	.15	322°	
a 10-02	.10	340°	
6-10-05	.10	310°	
a 10-11	.15	287°	
7-10-18	.20	340°	
a 10-19	.05	70°	
8-10-27	.25	330°	
a 10-33	.30	329°	Stone pipe 90° Bryan 93° Uncompagne 103 1/2° Green Velvet hill 114° Sneffels 163°
9-10-38	.25	322°	
a 10-52	.35	294°	
10-10-59	.35	315°	
a 11-07	.20	329°	
11-11-26	.95	328°	
a 11-35	.35	310°	
12-11-38	.15	360°	
a 11-44	.20	56°	
13-11-53	.45	21 1/2°	Stone pipe 99° Bryan 100 1/2° Uncompagne 110° Velvet hill 122° Sneffels 160°
a 12-04	.25	20°	
14-12-30	1.30	340°	
a 12-38	.25	356°	
15-12-53	.70	356°	
a 1-04	.40	310°	
16-1-06	.10	23°	
a 1-19	.30	05°	
17-1-20	.30	08°	
a 1-30	.40	04°	
18-1-40	.50	327°	
a 1-50	.40	40°	
19-1-54	.20	360°	
20-2-06	.50	335°	
Camp 2-28	1.00	335°	
	1577.0		



M.N. 269°00

Sans Luth 356°32'

R 300°40'

Oryan 21°16'

Muncipal 20°57'

Sniffle 54°44'

M.N. 23°44'

Bluff A = 342°58'

g 12°52' Sans Luth
h 12°14'

Oryan 141°12'

Muncipal 145°03'

Sniffle 172°51'

Muncipal hill horse peak

Channel No 6 - 23-050 - 54° 6450-

For Muncipal hill horse peak

Lopog Sta No 1
M.N. 23°02'

on Crak No 2 Aug 3rd 77

M.N. = 23°44'

Sta No 42
100ft Lopog Crk
Brook Aug 2 77

Sta 100ft west of Sta 6 of meander
line of Crak No 2 Aug 3rd 1877

1 mile
a

Sta No 43

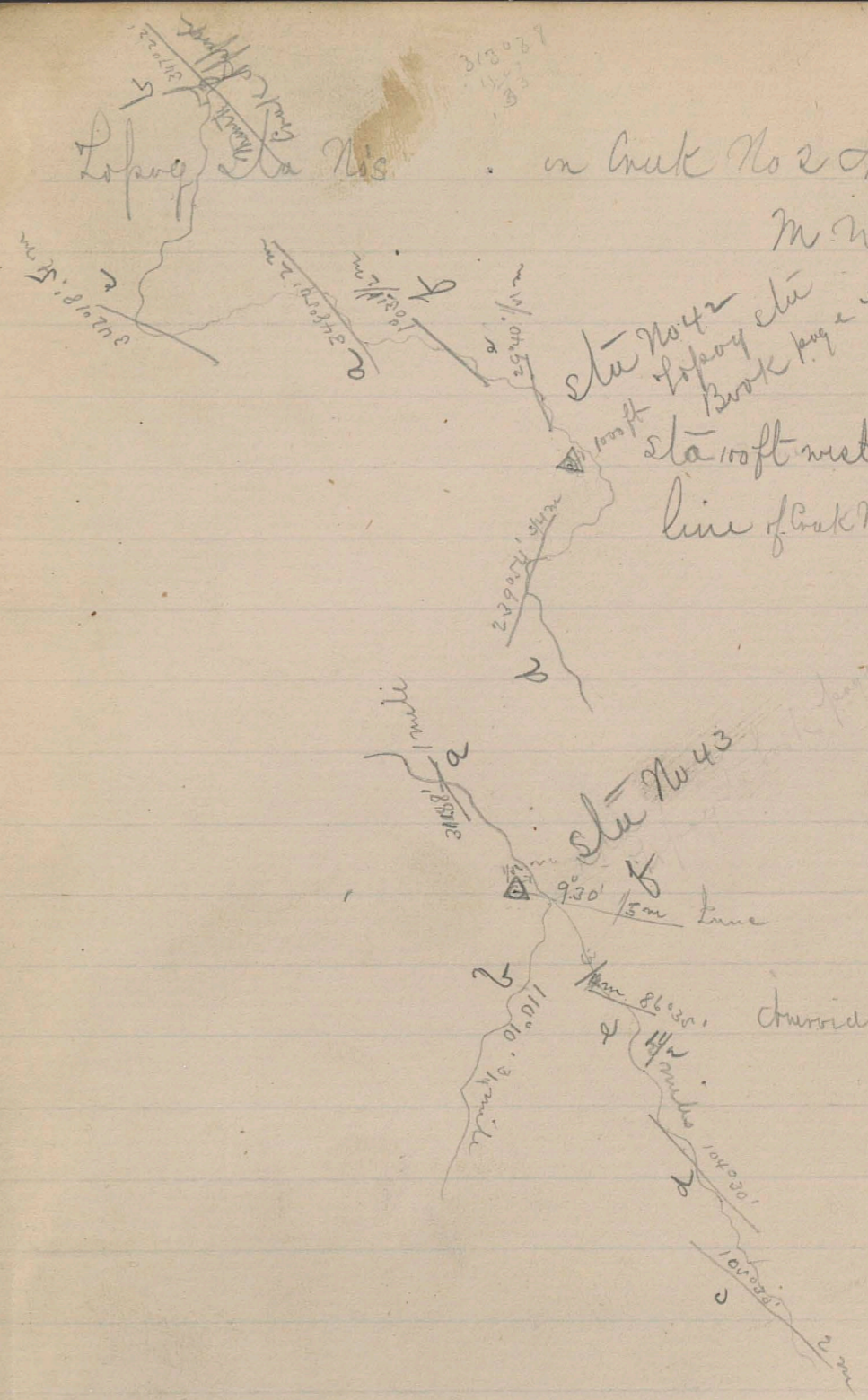
M.N. 269°00

9.30 / 15m time

86°30' Channel No

347.22
23.24
31.838

342.18
23.24
318.94
23.94
342.18
23.24
318.94



3 miles above Johnson ford
Umpqua River

M. N. 209°46' ✓

Bluff Pt. 347°54' Left trumpet Grand mesa

g 137°26' ✓
h 136°51' ✓ } Saw Loath

Grass 155°22'

Umpqua 158°54' ✓ Hill horse peak -

Sniffle 186°48' ✓

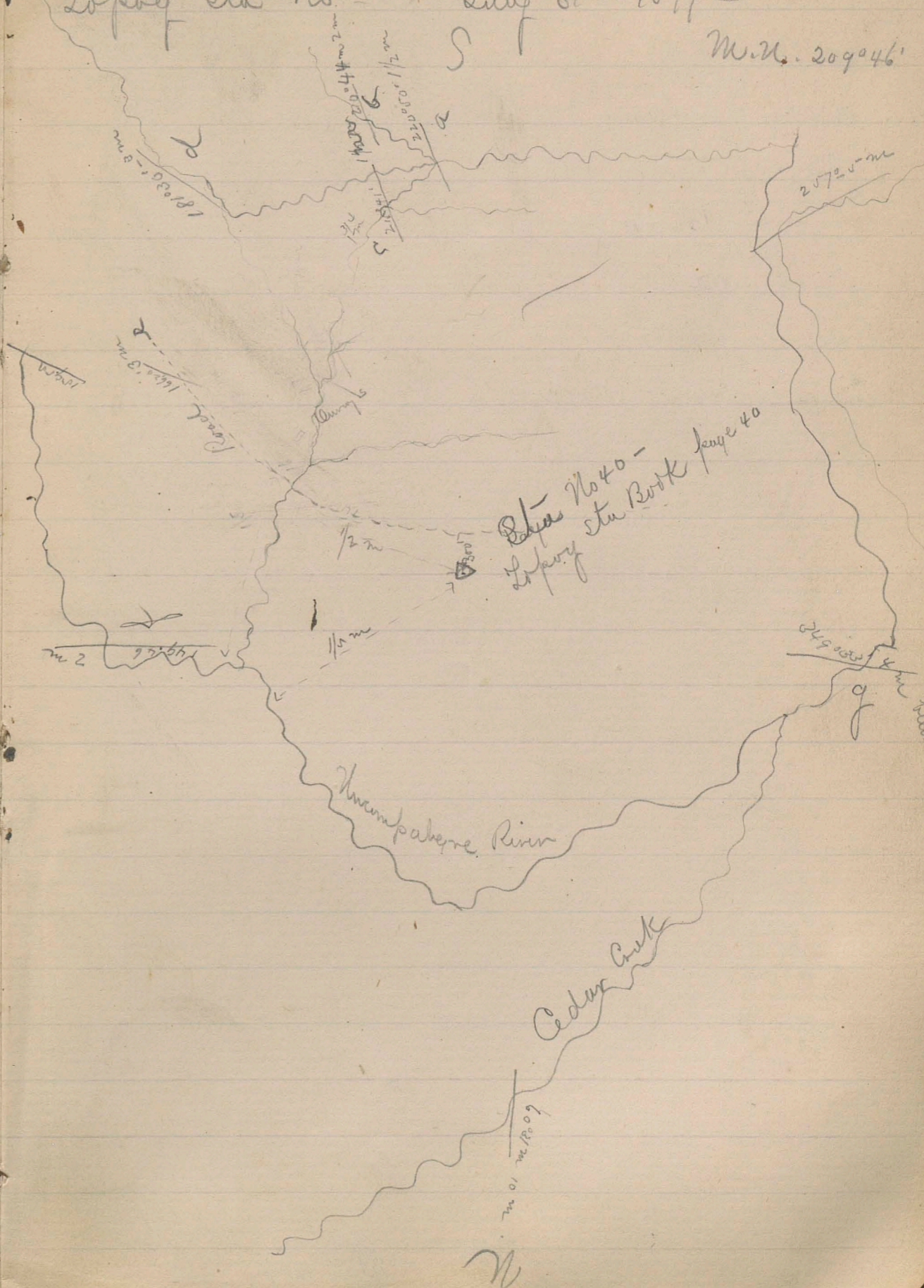
Old bridge

Station No 40

17

Lopez Sta No July 31st - 1879 -

M. N. 209°46'



Loprey Sta No 1 July 31

M.N. 128°08'

Bluff A 85°19' Left-Lungent Grand Mesa

g 217°15' } Saw Tooth
h 216°00'

Organ 249°43'

Uman 254°30'

Sniffels 289°41'

Shield Horse Peak

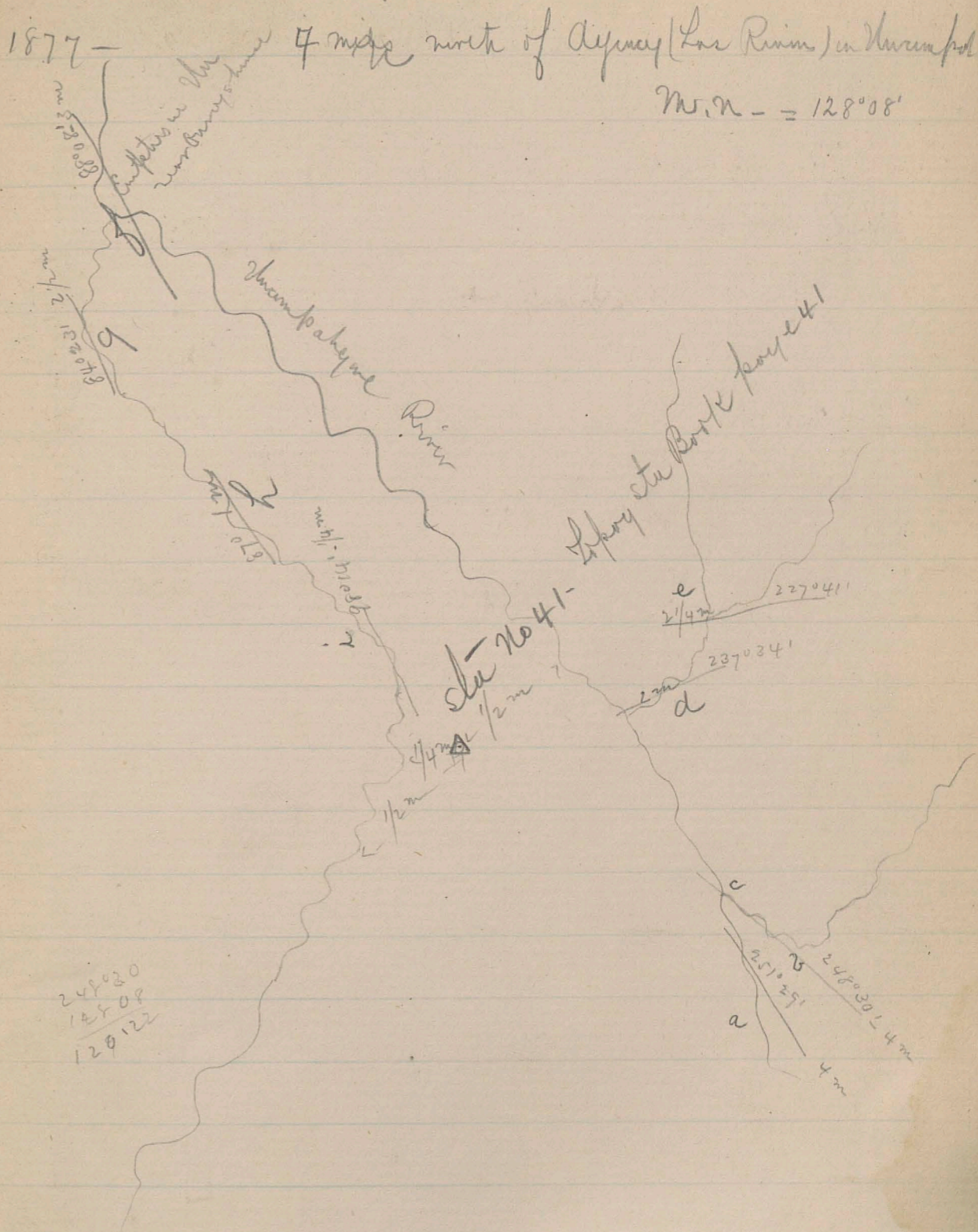
1877-

Loprey Sta

18

7 miles north of Agency (Las Rincon) in New Mexico

M.N. = 128°08'



249030
12808
120122

Lower sta

Loppy sta No 39

August 7/19

M.N. 196°20'

Bluff A - 154°55'

g - 307°42'

h - 307°14'

oryan 322°39'

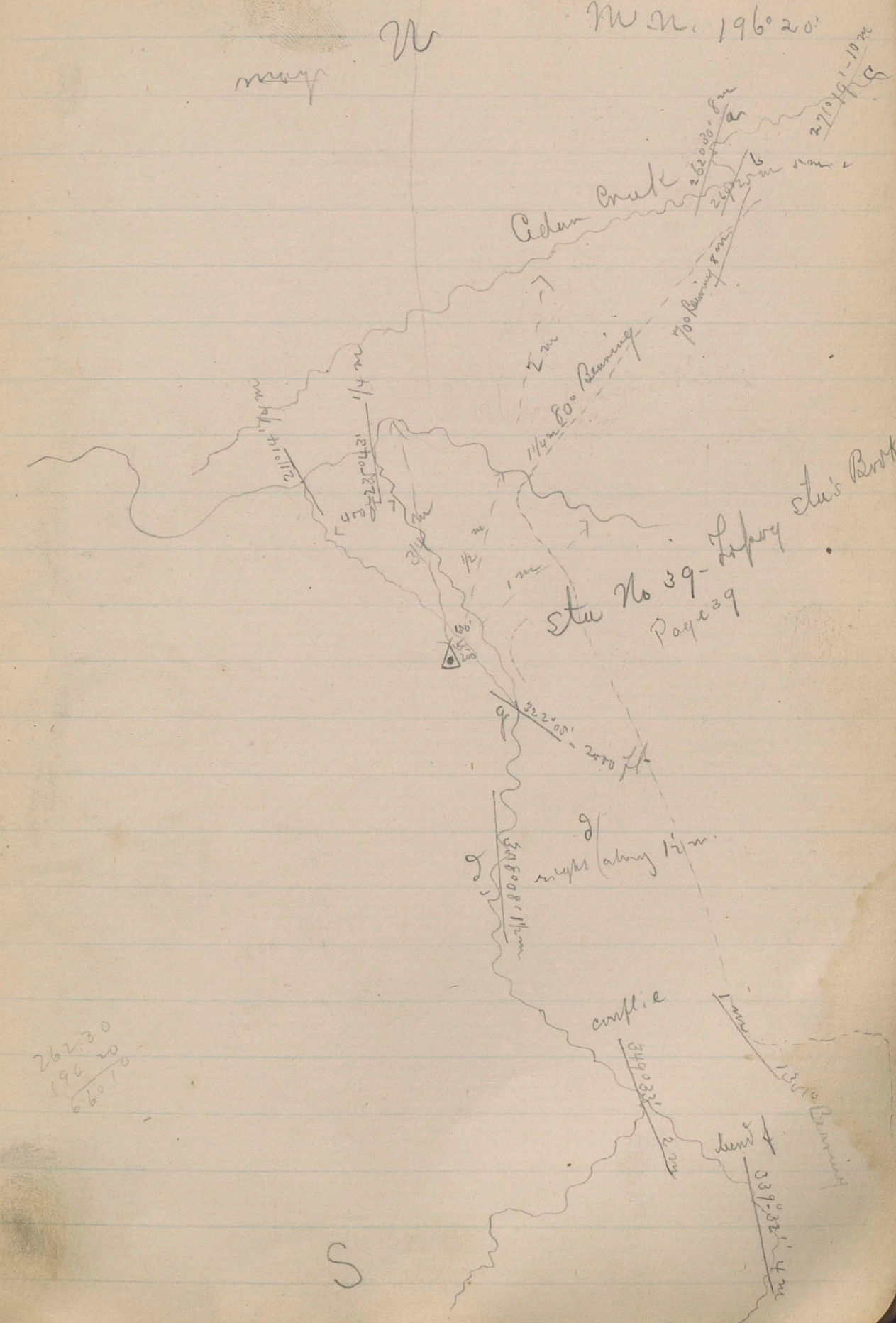
Urumpakhyre 325°48'

Sneffela 351°37'

Ameroid No

4th 76
920 - 23.810 - 5.450

M.N. 196°20'

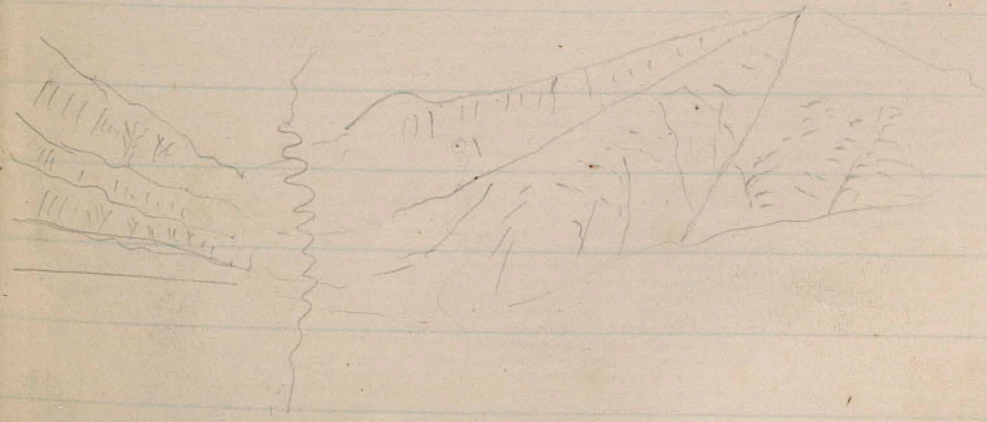


Sta	Vis. by odometer	Bearing	Odometer	Remarks
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Sta	Wid by Stations	Bearing	Distance	Altitude	Notes
Camp 36				23,460	at Aquary
Camp 36a			5252	5400	On Huampahyre 2
0-7.10	172°	6153			Bluff A 27-1/2 h 111°
1-7.47	150°	6748			Sniffels 755°
2-9.20	122°	7972			Bluff A 28° - Huam 130°
2-8.50	115°				
3-9.03	142°	8554			Bluff A 319° 9' 10" h 100°

On Huampahyre 2 miles below Johnson Ford - 13 miles not measured -

Orquay 123° 10' N 127° Sniffels 147°



Sta his by Bearing Odometer Aneroid
 ft m

Camp at (Ayenay) No 6 to 36 a in Mumpahyre River Aug 1st 77

Camp 9
 Camp 630-36 a

Survey of Creek No 3 Aug 2nd and 4th 1877 - 36 a to 36 b = 2.5 m not measured

Camp 640

0 2.04 172° 6150 5400 91 23950

1-747 1.55 150° 6748 5400 68° 23950

2-821 2.78 122° 7972 5400 72° 23850

a 8.00 1.51 110°
 3-903 1.32 142° 8054 5500 70° 23790

Camp 726 a m 7.49 2726 5700 64° 23600

3-831 3.80 142° 4400 5700 Aug 4th 77

a 9 am 1.24 169°
 4-927 2.36 200° 5441 5800 88° 23570

a 9.32 151°
 5-942 0.77 134° 5783 5900 89° 23410

a 9.51 161°
 6-958 0.57 182° 6036 5900 87° 23360

a 10.10 186°
 7-1017 0.81 185° 6393 5850 86° 23200

a 10.24 167°
 8-1020 0.67 204° 6690

a 11.10 170°
 9 1.09 225° 7471 6.600 88° 22820

Camp 230 6.95 668

Bluff A 317 1/2 g 1110 Bryan 128°
 Mumpah 130° Saffelle 105 1/2

Bluff A 319 g 1010 Bryan 128°
 Mumpah 127° Saffelle 105 1/2

Bluff A 321 g 81 1/2 - h 91°
 Mumpah 120 1/2 - Saffelle 106°

at Los Pinos Ayenay

his not measured = 13 m



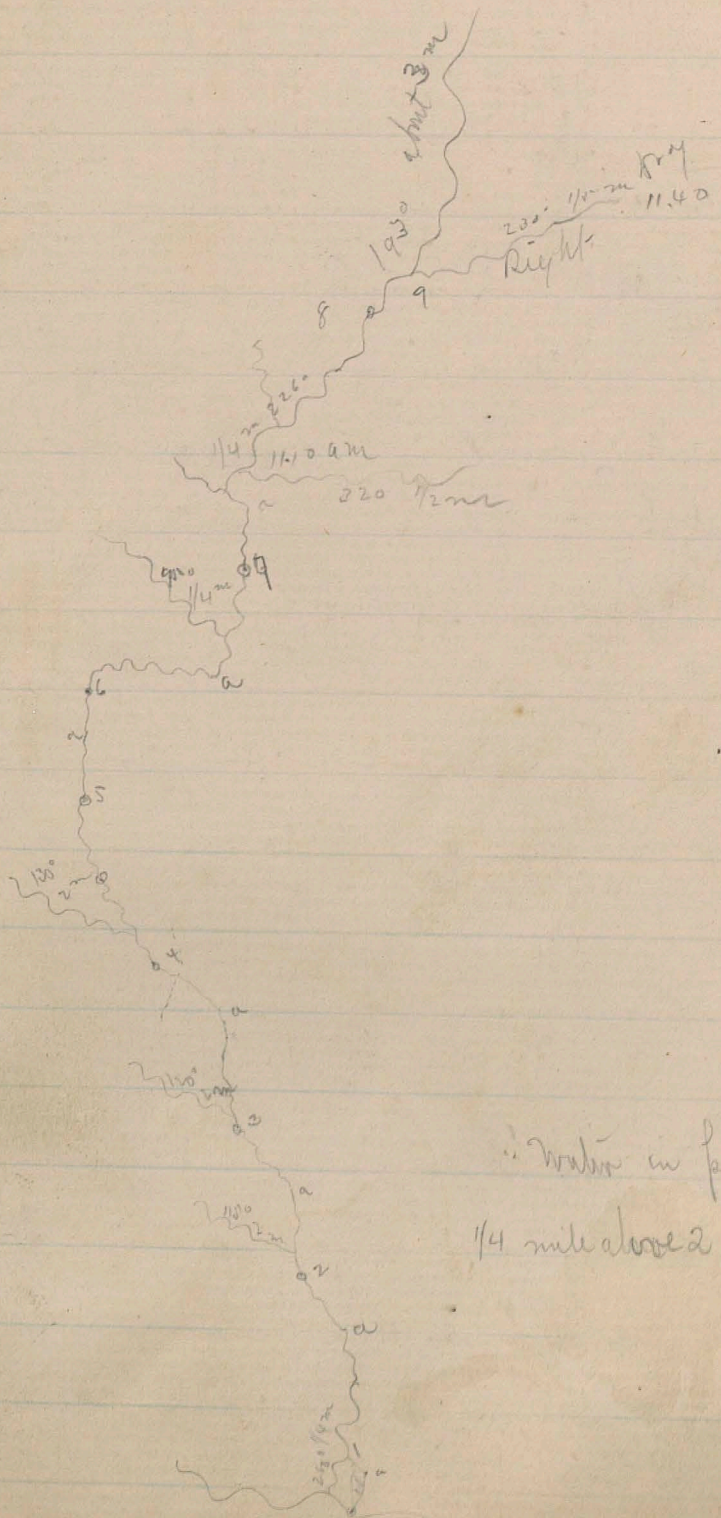
July 3rd from Camp 36b to 36c = Survey of Gule No 2
 July 3rd - 77

Sta	Distance	Bearing	Revised	Meridional	Lat	Lon
Camp 36b			3982.	5100	24.150	
a	0.87	142°			80	
170	0.87	178°	4365		24.100	
a 200	1.1	162 1/2			86	
210	1.57	148°	5038	5250	24.000	
a 5	1.42	131°	5670		86	
310	1.44	150°	5672	5350	23.910	
a 10	.78	138°			89°	
410	1.37	124°	6278	5450	23.850	
a 200	.71	138°		5400	87	
510	2.07	140 1/2	7190	7190	23.900	
a 400	.60	162°			91°	
610	1.72	204°	7949	5.650	23.650	
a 100	.75	189°			89°	
710	1.76	189°	8725	5.800	23.550	
a 110	.40	173°			89	
810	1.34	185°	9316	5.900	23.400	
a 110	1.40	209°			80°	
910	2.31	193°	333	4300	23.500	
10-120	0.20		423		86°	
14.60m			423	6.350	23.100	
5.23			2726			

Camp to a 167°

Bluff at 220 1/2 998 1/2 h 98° to 90° 119 1/2 the end

Measured 14.60
 Not measured 5.23



Water in fork from Sta 3 to mouth
 1/4 mile above 2 water running

Aneroid
 Ft kn Aug 14th
 at Road
 Hydrosta 343° Snuffels 141 1/2 W Fly Pk

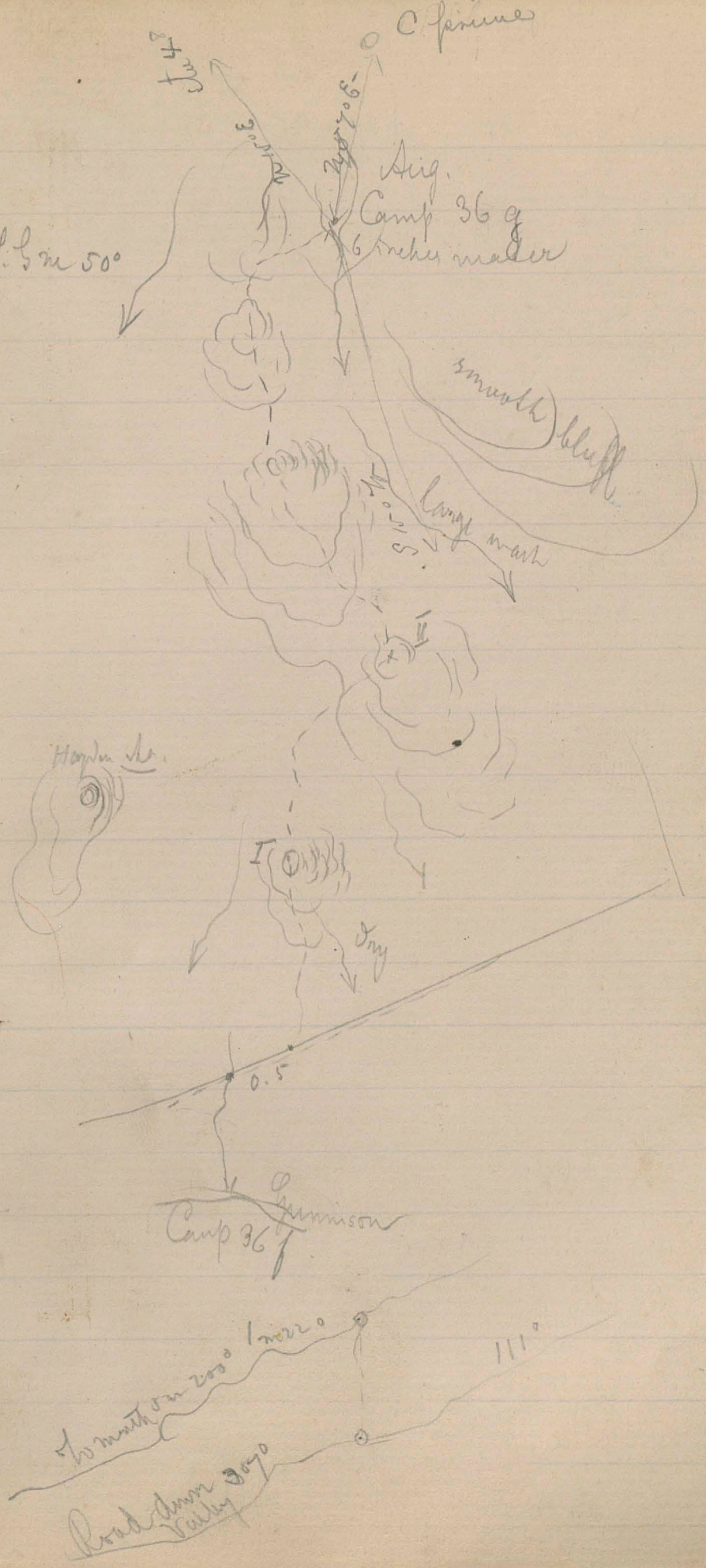
Sta 1 0942 47°
 1 224 41°
 2 105 241°
 2 62 36°
 3 1247 76 34°
 2 145 96 25°
 4 Camp 92 18°
 655

840
 24350
 950
 23700
 9023000
 94°
 22400

As

	minutes			
bell	9 ⁴²	68	3.40	47
I	10 ⁵⁰⁻⁵⁵	30	1.20	41
a	11 ²⁵	31	1.20	61
II	11 ^{58-10⁹}	38	1.40	36
III	12 ⁴⁷⁻⁵⁷	48	1.50	34
a	1 ⁴⁵	45	1.25	70
Camp	2 ³⁰			

Aug. Camp 36 g
 6 inches water
 143° L.F. 50°
 C. finium
 240706-

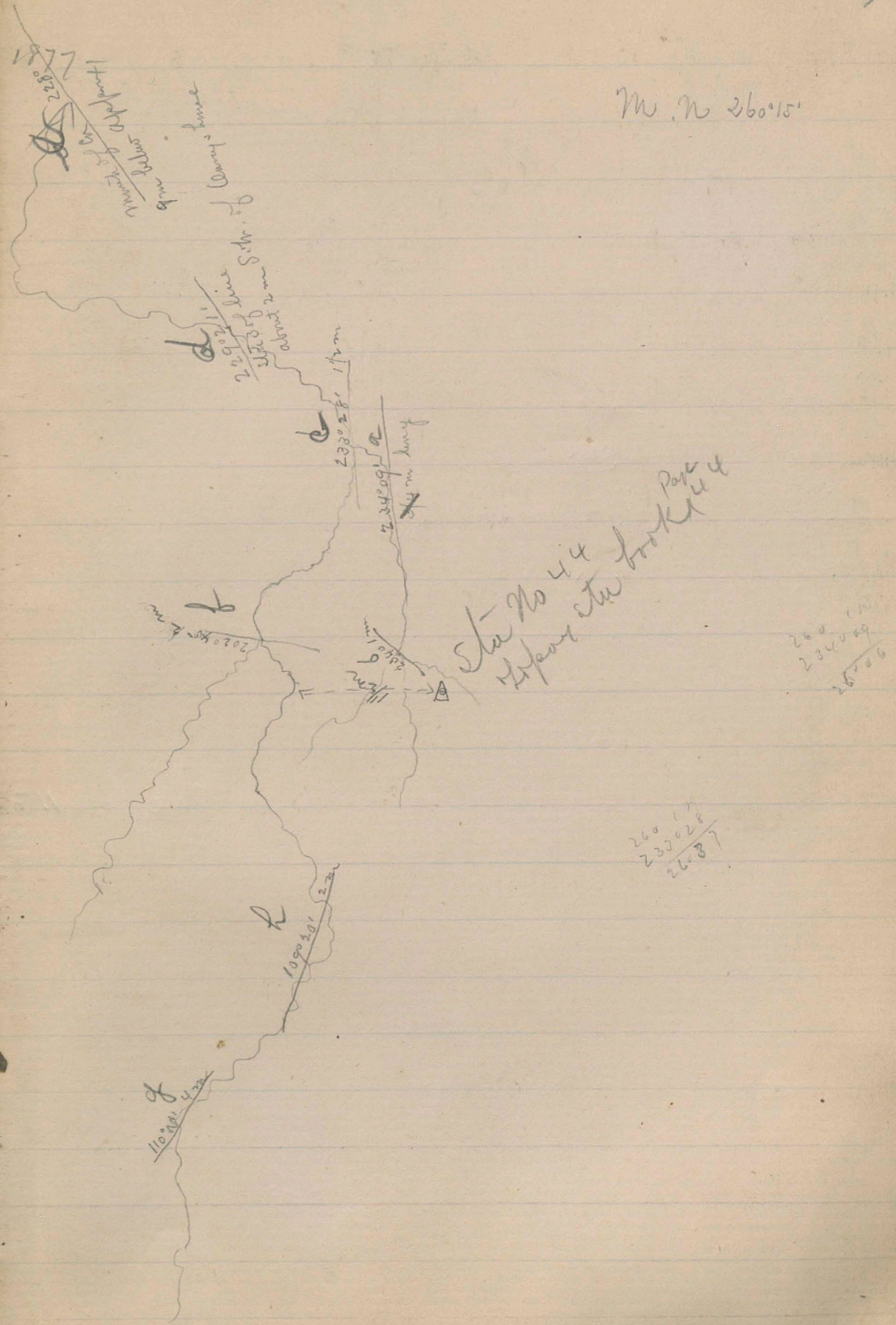


Loping Sta No 44 / check to Creek No 3 Aug 4th

7

Ms. No.	260°15'	Amvaid Note
Bluff Pt.	220°09'	Sta Then Elev
G	347°30'	23110 86' 6270'
H	346°20'	
		Saw Lute
Organ	19°20'	
Uncompahgre	24°21'	hill horse peak
Smiffite	58°46'	

Ms. No 260°15'



Sta
 hrs by Barometer
 Bearing
 Storm Bar
 Aneroid

July 16th -

Camp No 36g to 36h

7.26 0			21.700
1-7.53 ⁵⁵	1.35		21.450
a 8.06 ²³	.55		
2-8.20	.70		21.550
48			
3-8.46	1.15		21.700
a 8.52	.40		
4-9.30 ³⁴	1.70		22.050
1025			
5-9.59	1.25		22.900
a 11.4m			
6-10.52	1.65		23.525
a 11.17	.85		
7-11.24	.35		23.900
00			
8-12.00	1.70		24.270
48			
9-12.40	2.10		24.350
27			
10-12.30	1.70		24.500
50			
11-1.47	1.60		24.510
Camp 2.58	2.25		24.700
	18.40		

allow 23 m for tides from 11 to
 Camp -

Sta
 No by time
 Bearing

Aneroid

Ft In Aug 17th - (Remarks) 1874

Camp 36 h to i

0.745		24700	24700
9.30			
1-8.20	1.75		24500
10			
2-10.08	1.98		24650
40			
3-10.30	1.00		24600
10			
4-11.08	1.15		24600
44			
5-11.38	1.40		24525
2-12.30	2.55		
6-12.47	.60		24360
50 2			
7-1.14	2.50		24320
2.24			
Camp	1.40		24300
	<hr/> 16.38		

Western end of Grand Canyon

Mt Leon = $96^{\circ}42'$

Cone

No. 26 = $701^{\circ}15'1$

Cone No. 1 End $4855^{\circ}16'$ (incl. 1 ft of level end)

Cone " 2 Lander $5822^{\circ}15'16$

Three Fly Rk

Sta No 50 $165^{\circ}20'9-10$

To Corner 8 m = $328^{\circ}49'3.4$

Bend 1 = 5 m $297^{\circ}29'6.7$

Course b = 3 m $294^{\circ}38'7-8$

" c = 2.50 $292^{\circ}29'8-9$

Bend 2 = $74^{\circ}20'11-12$

Course d = 2 m $72^{\circ}30'12-13$

" e = 3 m $78^{\circ}5'8'10-11$

Gap f = 5 m $101^{\circ}18'14-15$

" g = 2.50 " $327^{\circ}5'44-5$

Point h 1-m $321^{\circ}45'5-6$

Course i 1.50 m $357^{\circ}5'4'12$

Course j 1-m $330^{\circ}44'13-3$

Course k 4 m $10^{\circ}15'17-18$

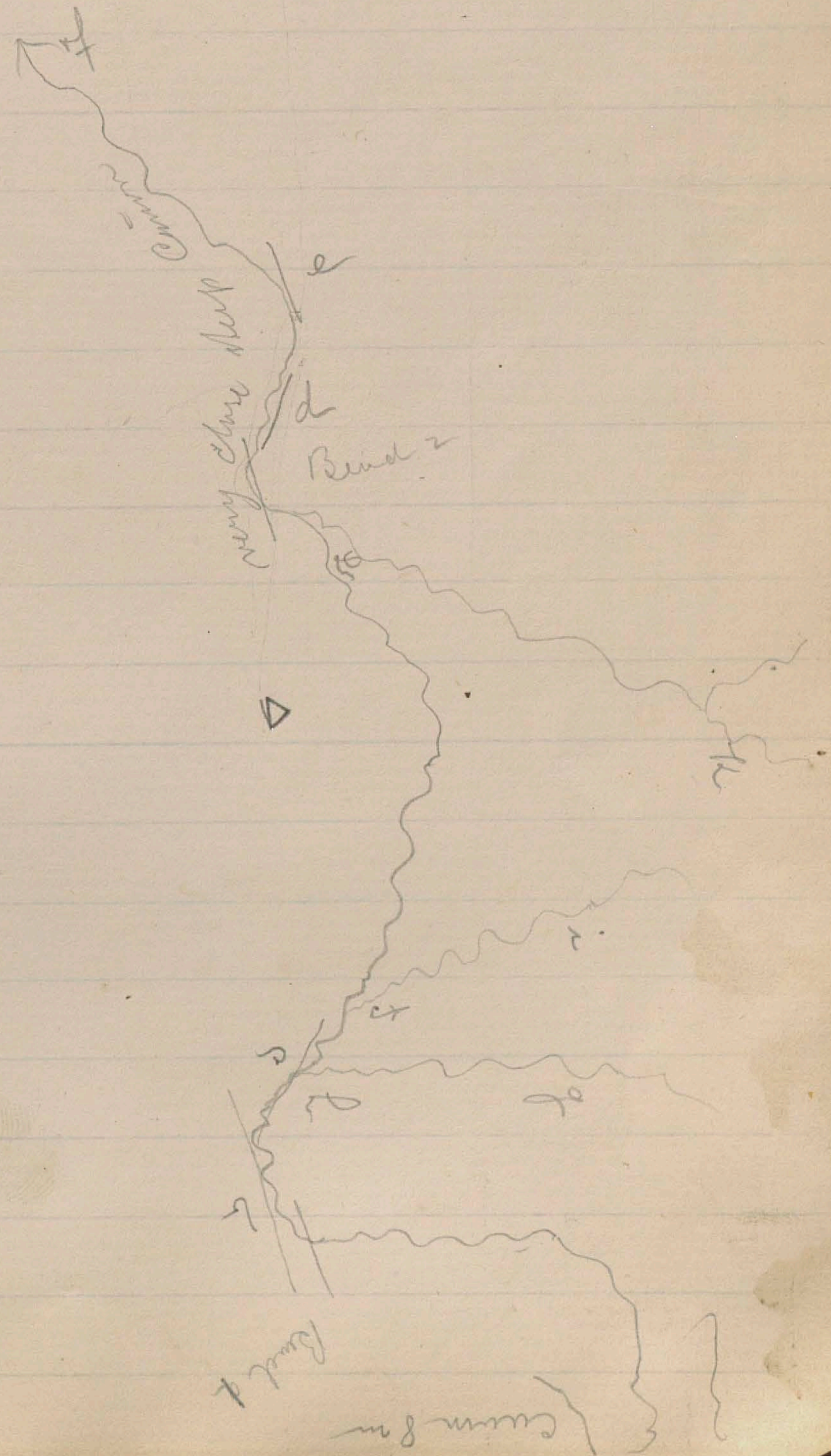
Course l 2 m $71^{\circ}08'13-14$

of the Gunnison River

Lafayette Sta No 54 - August 18th 1894
N.

Queroid No 7

L = 203050



Sta	Wgs	Bearing	Aneroid	ft	Inches
407					
42					
1-717	.50			24.425	
2-846	3.20				
2-1022	3.40			24.150	
17					
3-1007	2.00			24.050	
2-1020	.44				
4-1040	.87			24.210	
5-1140	3.50				
6-1152	6.9				
	12.70				
	25				
	12.95				

Three in per hr to 3
 Crossing of cedar Cr
 Bank of Mem phylax
 3.50 per from 3 to 6
 Camp at noon at Johnsons Ford -

Crossed Cedar Cr at 11.20

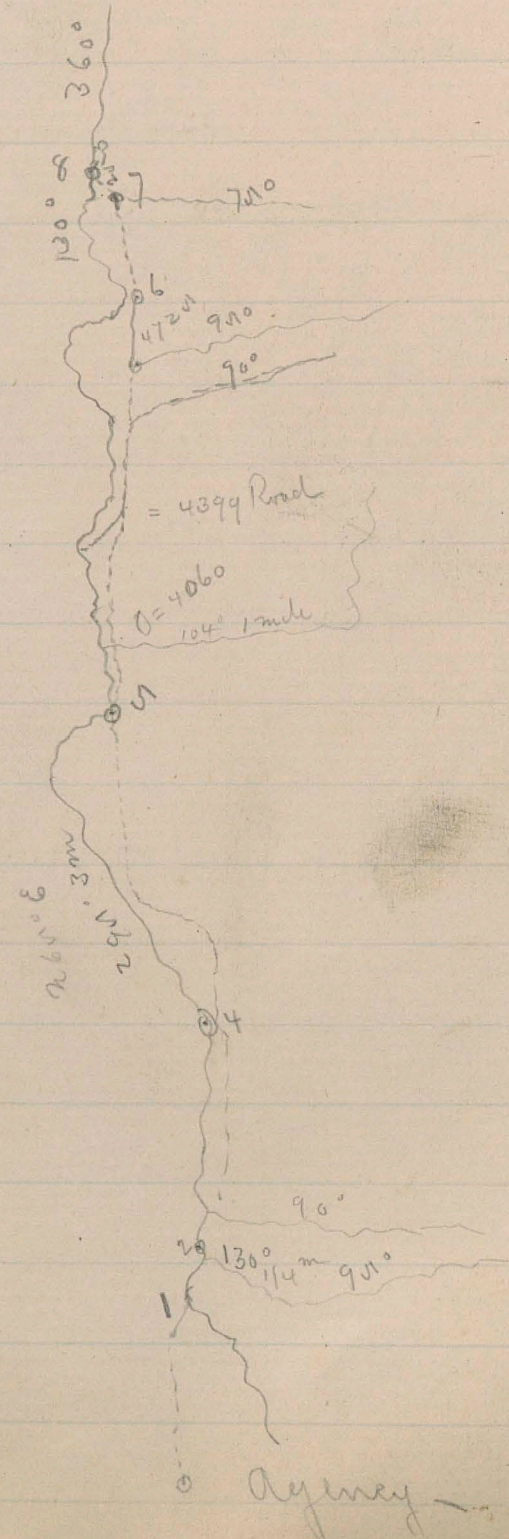
Meander line on East side of Mucum-Riv from Camp 36 to 37-

Sta	Dis	Bearing	H. Azimuth	Remarks
Camp	5000		84°	
0	1246	328°	23.450	Luc Pinos Agency - 328°
1	1379	328°	90° 23.450	Mucumpatyne crossed
2	1913	340°		
3	2744	320°	91° 23.460	Station L 310° R 316° Bluff 1=30 No 2=80°
4	2843	310°	94° 23.510	Station L 290° R 320° No 1=10°
5	3763	320°	74° 23.600	Station L 290° R 320° No 1=10°
6	5001	304°	98° 23.710	Sta 50-318° Mucum fly pk 180°
7	5092	253°	98° 23.800	Sta 50=310° Mucum fly pk 170° Snuffula 170° Mucum 120°
8	5235	300°	99° 23.800	
Camp	5376		97° 23.820	Mucum River

360
107
253
360
31
360
306
307
324

To be plotted

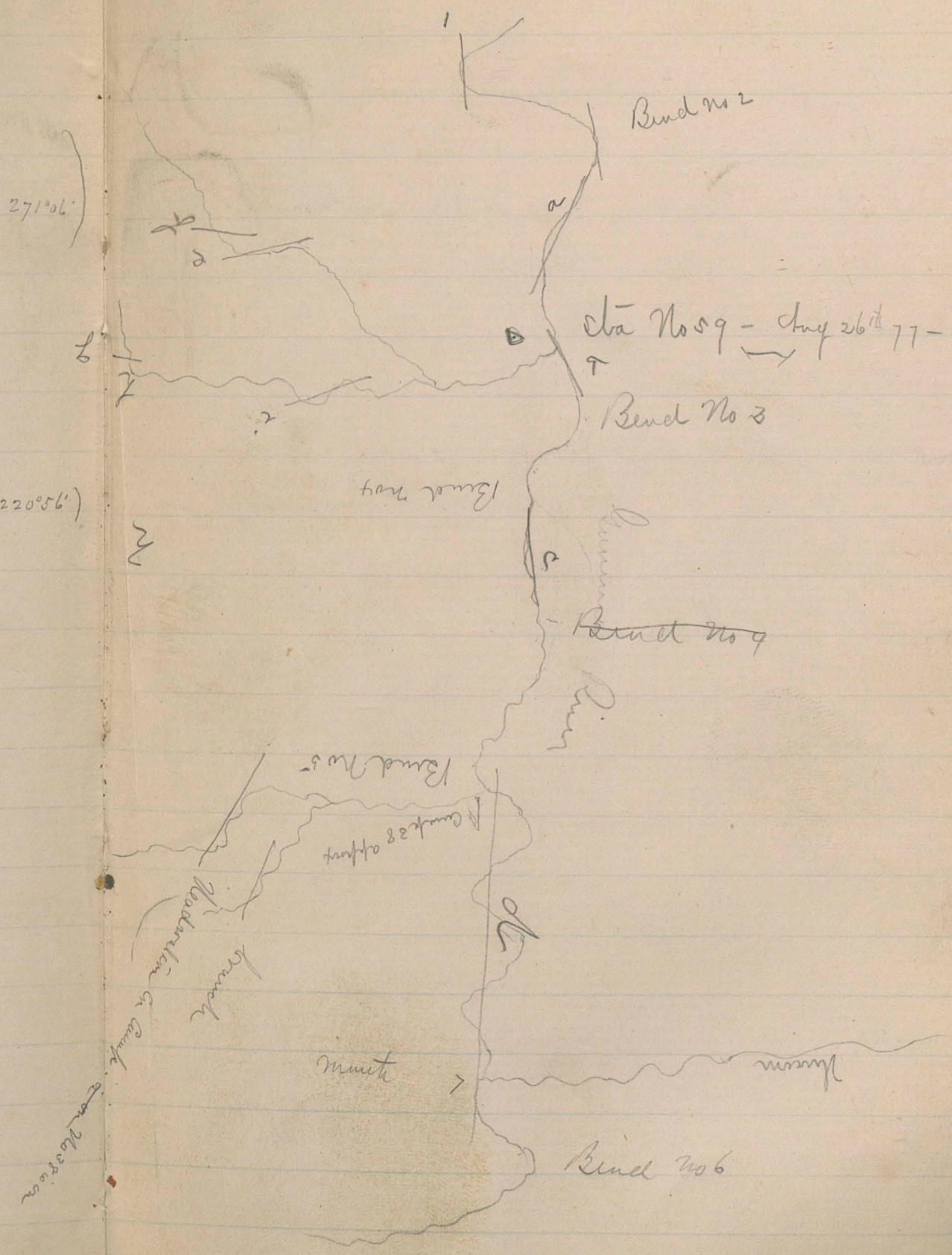
Snuffula 160° Mucum fly pk 190° Sta no 50 = 316°
240°
Snuffula 160°
Mucum 120°



260
230000
21014

Loopy Sta No 59 - August 26th 77 - About 8 m above

No-N-	341°23'
Bend No 1	66°44' - 8 m - (Branch 260°06')
" No 2	100°45' 450 m (On line 38 is m leadw = 271°06')
" No 3	208°17' 100 m 103°1'
Course No 4	219°32' 2 m
" No 5	227°50' 6 m
" No 6	219°39' 10 m
Course a	1 m 103°18' - (Mouth of Unknown peak - 8 m = 220°56')
" b	1 m 198°07'
" c	2.50 m 216°09'
" d	10 m 223°55'
" e	1.50 m 349°20'
bend f	1.70 m 352°00'
" g	3 m 314°46'
Course h	2.50 m 312°16'
" i	1.50 " 286°04'
Lead s	52°16' - three fly pk = 140°44'
End	58°09' - wild horse pk = 121°37'
Saddle Mt'n	76°59'
Sta No 58	141°04'
" " 50	266°25'
Rt. Trgt. of Iron dome	357°19'



From Camp No 39 on Summit to Camp 39a foot of

Mesa

To be plotted

Sta Menden August 27-1877 to Mesa -

Sta	his	Bearing	Temp	in	Remarks
Camp	6.34	10°	4.660	67°	24.740
a 8.55	1.00	336°			
1-9.20	1.25	350°	24.650		
2-11.29	6.00	353°	24.200	90°	
a 12.08	1.80	351°	23.900	100°	
3-12.31	1.15	310°	23.600	100°	
a 12.50	.40	290°	23.400	100°	
4-1.20	1.20	250°	22.610	101°	
a 1.35	.32	208°			
5-1.43	.32	327°			
a 2.10	1.85	305°			
6-2.50	1.37	297°			
a 3.20	.50	336°			
3.09	1				
	17.21	7			

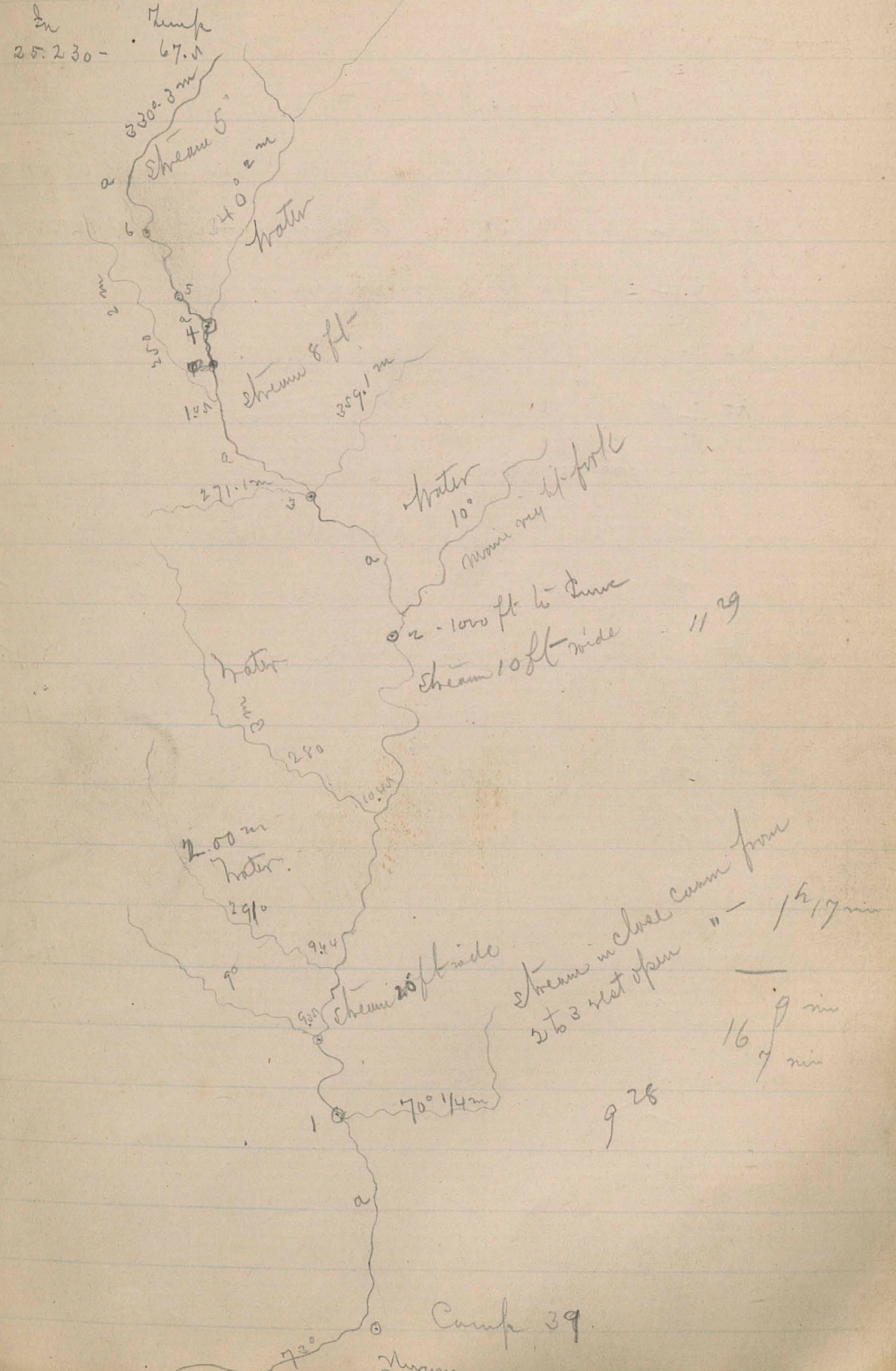
2.50 m per hr from ~~7~~ 3 to 5 and
~~2.00~~ 1.50 per hr from 5

Meadowed 17-21 m

Annoy No 6

TP. m 21.925 - 80°
 7A. m 21.910 56° - 7800 ft

2086



Lopoy sta No 64 August 28th 1874

Camp No 39 - 41°16'

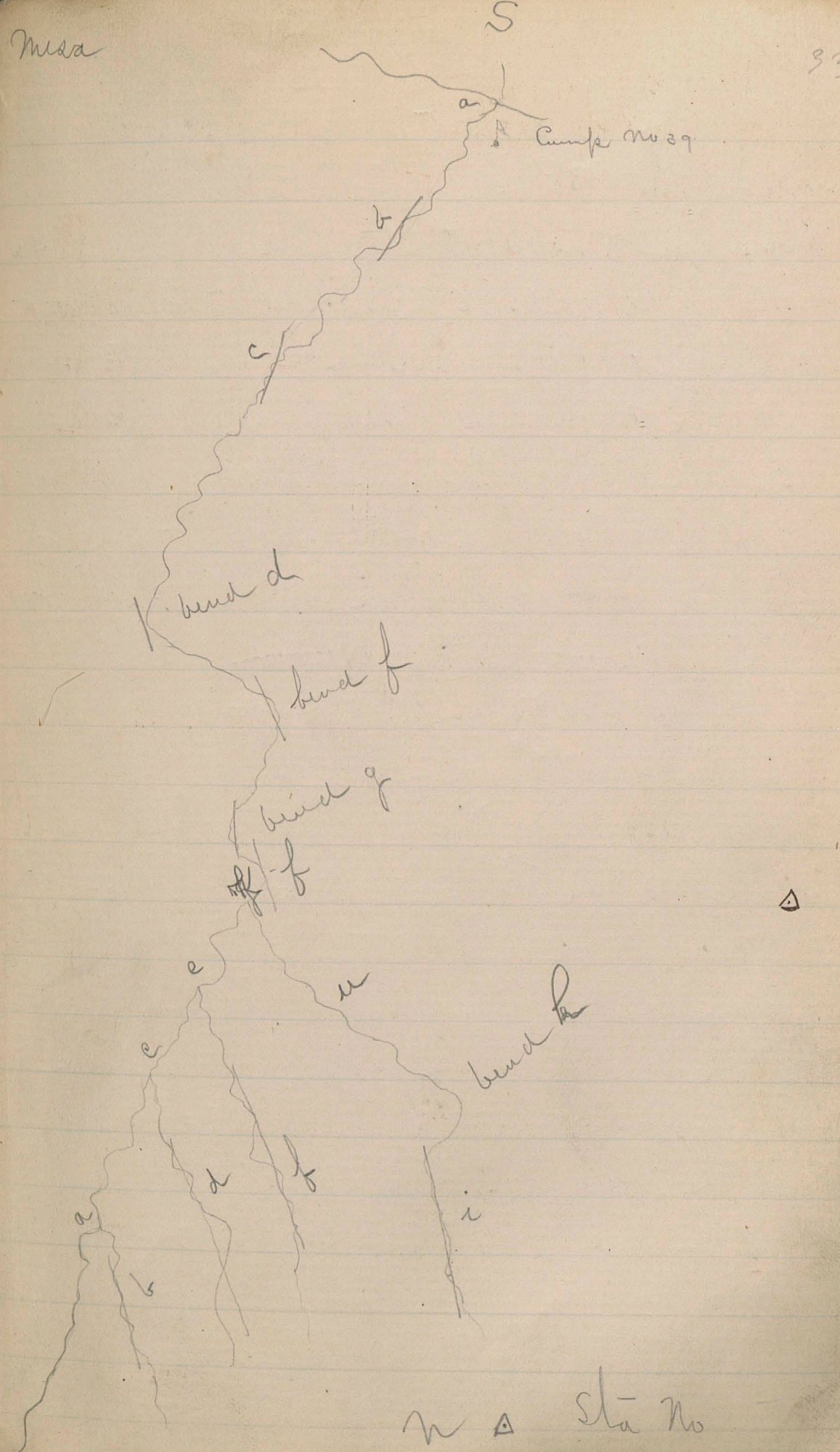
Camp No 39 5 * 189°31' - 19 m
 Course a 7 # 185°48' 16 m
 " b 12 * 176°30' 10 m
 " c 14 42 167°00' 10 m
 bend d 19 # 149°23' - 9 m
 " f 18 # 153°30' 8 m
 Course f 20 # 148°37' 7.5 m
 bend g 21 # 147°41' 7.7 m
 Line a 27 # 131°56' - 3.00 m
 Course b 28 # 124°54' 1.5 m
 Line c 24 # 138°55' - 3.5 m
 Course d 25 # 137°43' 1 m
 Line e 22 # 146°19' 4 m
 Course f # 152°02' - 1.5 m
 bend h 10 # 179°39' - 1.5 m
 Line K 16 # 154°30' 8 m
 Course 18 # 181°30' - 3/4 m
 " 15 # 161°29' - 5 m

Line Cme - 213°28' + 2
 Colver Pk - prob - 206°40' + 3
 Sneffels - 192°50' + 4
 Wild Horse Pk - 180°07' + 9
 Uncompahgre - 177°31' + 11
 Sta No 58 -
 Sta No 59 - 171°20' + 13
 Saddle Mt - 150°00' + 19
 Lander - 136°38' + 26
 End - 141°27' + 23
 Camp No 39 Sta 189°18' + 6

Aneroid No 7

h = 20860 Camp 71° 9050'

Mesa

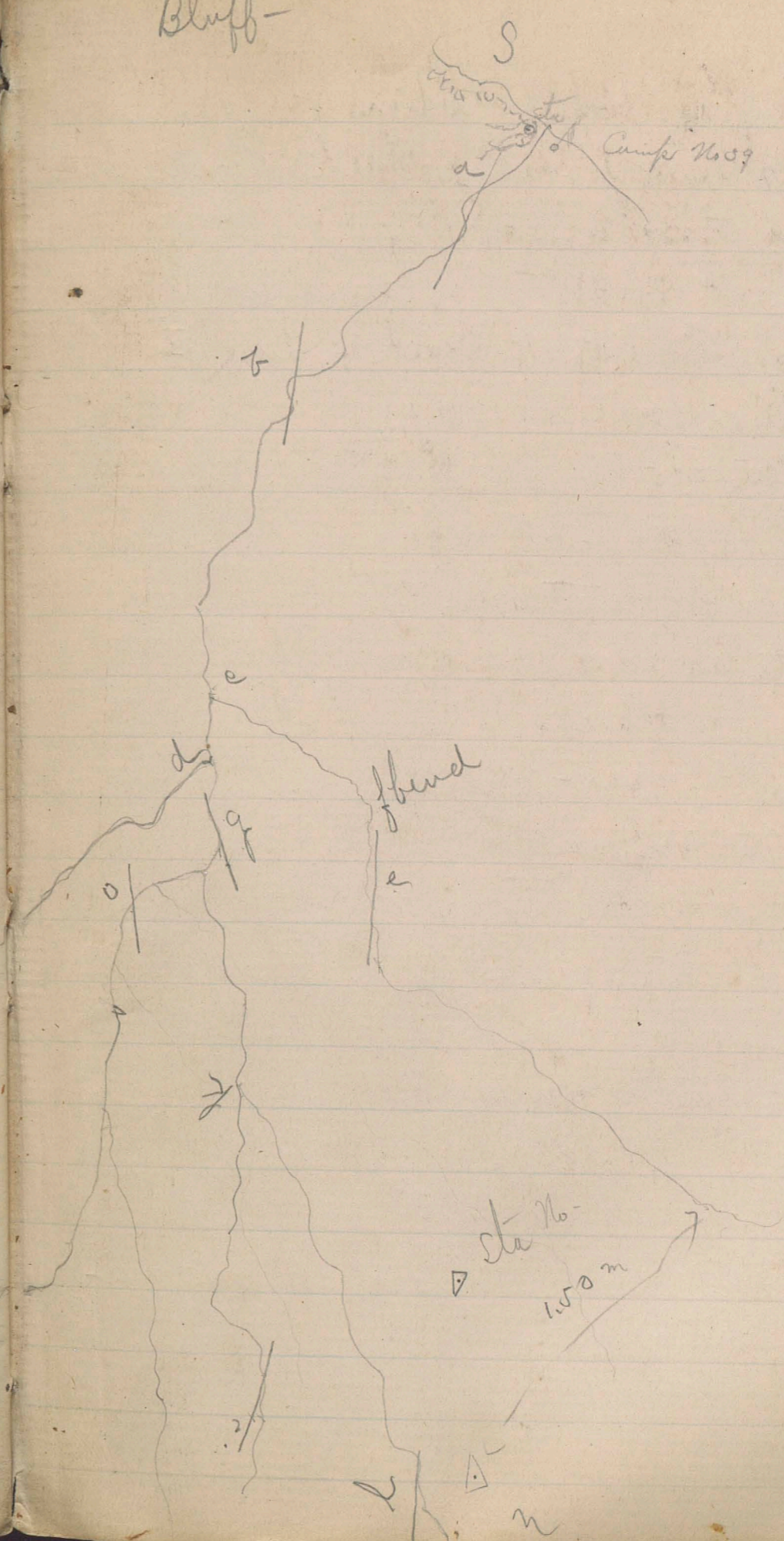


Loppy sta No 65 Aug 28th 1874

Course a	125°33' 10 m	Lone Cone	108°43' 56
" b	119°53' 8 m	Smiffela	137°20' 07
" c	116°55' 7.5	Wild Knave	124°02' 11
" d	101°51' 6 m	Mucampahye	121°12' 12
Course e	129°53' 2.50 m	Saddle mt	91°36' 19
Bend f	128°27' 2.70 m	Laude	76°21' 21
Course g	68°30' 3 m	End -	81°20' 20
" h	33°23' 4 m	Sta 52	
" i	308°04' 2.50 m	1159-	
" k	341°10' 1 m		
Course l	248°20' 1 m	Averoid No 6	
Bend o	64°30' 3 m	In 21.890 - 86 Temp 7800'	

From Camp 39a to Loppy sta's No and end
 return to Camp 39a = 10 m not measured
 29th Aug from Camp 39a to return to Camp 39 = 14.2 m
 28-7 P.M. In = 21850 ft = 7800 Temp = 56°
 29 6 A.M. In 21870 ft = 7810 Temp 45°

Bluff-



Likographical Stations

Camp 8 to 9 at Big Turkey Creek - Black Butte

- 1 Black Butte 74°4'
- 2 " " —

Camp - Canyon de Cristo Creek - June 10th

- 1 - Badito Cine 33°
- 2 Sheep Mt 225°
- 3 Huato 287° -

m-n 117°

- 4 - Badito Cine 61°23'
- 5 " " 78°12'
- 6 Curran V 94°05'
- 7 Sheep Mt 176°44'

m-n - 221°30'

- 8 Sierra La Vata - 103°40'
- 9 Curran Verda 207°18'
- 10 Badito Cine 194°30'
- 11 Baldy 337°
- 12 Sheep Mt 207°30'

m-n 251° Sierra de Cristo pass -

1 = June 9th

Camp at Fort Garland - June 11th

- 1 Baldy Peak 287 1/2°
- 2 " " 297°
- 3 Sierra La Vata 46°
- 4 Road to El Mono 46°
- 5 Baldy 124°
- 6 Sierra La Vata 226°
- 7 Baldy 129°
- 8 Sierra La Vata 227°
- 9 Baldy 143°
- 10 Sierra La Vata 228°

Camp at Pinchura Creek - June 14th

- 1 bel Norte Peaks - Left 260°
- 2 " " " Right - 261°15'

Camp at Anexas Creek June 15th

Camp at Conejos Creek June 15th - 77

Mag North $61^{\circ}54'$

- 1 Sierra Blanca $40^{\circ}26'$
 - 2 Three Le Lins $67^{\circ}49'$
 - 3 Red Norte Peak $152^{\circ}13'$
 - 4 Right-Long of hills $196^{\circ}51'$
 - 5 Sta 1874 $248^{\circ}15'$
 - 6 Costilla Peak $319^{\circ}23'$
 - 7 Trinchara " $340^{\circ}21'$
- $M-N- 97^{\circ}46'$

8

Meander of Creek at 4m above Camp 39 -

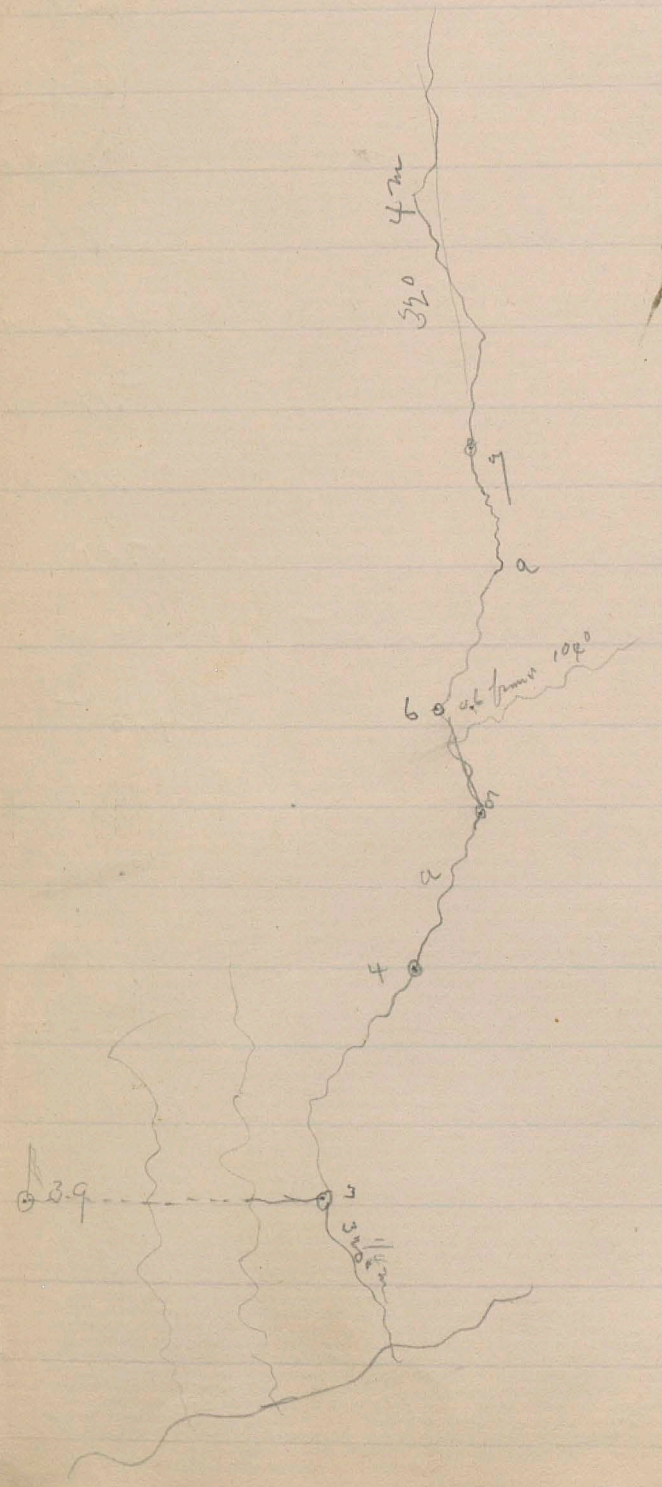
Sta	Dis	Bearing	Aneroid No 6 St. Temp. In	Remarks -
Camp 39	0.00	66°	65 24.775	
1	1.05	52°	77 24.600	
2	0.80	66°	79 24.500	Snuff box 100 ft. high base 139° saddle
3	1.80	360°	81 24.650	Stream
4	1.00	15°	88 24.570	
a	1.10	3°	98	
5	1.80	28°	24.300	
6	.70	44°	96 24.190	
a	2.00	101°	88	
7	.50	32°	24.150	4 m
	8.45			

Measured 12.45 m 207 m = 12.45

August 30th 1874

To be plotted

Run 95° End 78°



Distance from Eighteen miles below lower crossing of Uncompeahgne (Johnson Ford) to Bullas Creek

Eighteen miles below	18.00
From Road Crossing to Chief Curays	2.90
" Curays to Agency-	8.68
	<u>29.58 M</u>
From Agency to 1st Crossing of Uncompeahgne	3.89 "
" " " 2nd " " "	4.22 "
" " " 3rd " " "	5.11 "
" " " Cow Creek	6.09 "
" " " Hot Springs	15.81
" " " Camp on Bullas Cr near mouth-	19.04
" " " Curay	24.65

Stems to Continental Drive	18.1
next Mide	6.8
	8.4
	<u>33.2</u>

= 11.58 = via from ford to Agency -
 $\frac{11.1}{16.69}$

Playoff Center of town -
 Hot Spgs to Curay 8.8 July 27th
 Ag^y to Hot Spgs 16.5 water road
 old log road 19.80 July 30 -

Lake C ^y to Barnum	21.20	to Capital	10.44
Blue Cr.	15.00	to Mide	7.00
Cinnaron	10.98	Mineral C ^y	3.90
Johnson's ford	20.77	Curay	8.00
Los Curays to	82.90		28.44
Ag ^y	8.68		
	<u>79.68</u>		11.58

By way of old log road -

8.84 9
 15 3/4
 17 3/4

Reading at Camp 6450 Rev
 " " Chief Mags - 7486
 " " Agency - 486
 To first creek west of Agency = 9025 Rev
 " " Cropping M 1830 "
 " 2 " 1944 "
 3 " 2251 "
 2360 "
 Cow Creek Cropping - 2588 "
 To Hot Springs 5945 "
 Camp 7161 "

Circumference of wheel 15-3 ft -

Camp in Ancon pobyre above 2nd Cropping

From Ancon pobyre Cropping to Chief Mags
 " Mags to Agency -

Distance from Newcamp to Crofting to Chief Kings

" " " " to

- 7.486 Rev

Miles

Ayung

Anemoid Readings on Side Trips Aug 11th 1874 -
 Stearns - Anemoid No 7 - \bar{h} \bar{t} \bar{t} \bar{t}

22.620 82°

" " 2091 23.620 81°

Camp at Cropping of Uncompahgre River Aug 11th

7 P.M. Anemoid No 7 - \bar{t} = 76° \bar{h} = 24.000 - No 2091 - \bar{t} = 76° - \bar{h} = 24.000

7 A.M. " No 7 - \bar{t} = 60° \bar{h} = 24.000 - No 2091 - \bar{t} = 61° \bar{h} = 24.050

Camp 18 m below Linnem ford - Aug 12th

7 P.M. Anemoid No 7 - \bar{t} = 74° \bar{h} = 24.25 - No 2091 \bar{t} = 73° \bar{h} = 24.575 -

7 A.M. " " \bar{t} = 54° \bar{h} = 24.660 " " \bar{t} = 53° \bar{h} = 24.700 -

7 P.M. No 7 = 24.350 - No 2091 = 24.320 - 7 A.M. = 24.320 - No 2091 = 24.310 - 13th -

Aug 14th

7 P.M. No 7 \bar{h} = 21.780 \bar{t} = 72° 2091 \bar{h} = 21.780 \bar{t} = 71°

7 A.M. " " \bar{h} = 24.960 " " 2091 \bar{h} = 24.950 \bar{t} = 71°

Aug 15th

7 A.M. No 7 \bar{h} = 21.750 - 56° - No 2091 \bar{h} = 21.800 - 62° -

7 P.M. No 7 \bar{h} = 21.750 - 75° - No 2091 \bar{h} = 21.735 - 72° -

Aug 16th

7 P.M. No 7 \bar{h} = 24.560 - 79° - No 2091 = 24.600

7 A.M. No 7 \bar{h} = 24.600 - 77° " " = 24.600 - 17th

17th Aug

7 P.M. No 7 = 24.400 No 2091 = \bar{h} = 24.500 - 7 A.M. No 2091 = 24.500 No 7 = 24.450 -

Not measured = 12 m from Camp 36 to 36d

Camp 36d to 36e = 18 m not measured

Camp 36e to 36f = 13 measured and five m not

Measured 14th from Camp 36f to 36g = 6.55

15th Aug not measured = 6 m - from Camp 36g to L.P. project ^{Camp 36g} 548 + 50 to return to

16th Aug Measured 18-40 from Camp 36g to 36h on ^{mountain of Uncompahgre} junction near

Measured 16.38 from 36h to i

18th Aug
7 A.M. No 7 = 24.400 = 2091 = 24.500 - 7 P.M. = 24.420 - 2091 = 24.470

19 Aug
7 P.M. = 24.470 = 2091 - No 7 = 24.400

Aurora - No 2091

8. 2.36.20

not measured = 14 miles

13 m

10 m

5.28.4

84° - 25.269
 80° - 24.740

61° - 80

Date Camp Route Measured Not Measured Total Time

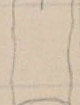
Camp on the Guzman River

Dawsonian

Felix Bourgeois

Oh shade of the mighty

Subj. August - Not measured 13 m
 " 2nd " " 13 m
 " 3rd " " 15.23

16	14	At Cameroo Creek		18.857		18.857
17	14 1/2	" Gatu "		14.303	12.170	26.473
18	14 1/2	Lo Piedata "		7.420		7.420
18	15	" " "		3.432	3.772	7.204
19	15	" " " " " " " " " " " "		14.931	10.988	16.919
20	15 1/2	Lo bel route 16 Camp				24.829
21	16	" Survey of San Francisco Co		10.550		
23	17	" South fork of Rio Grande			16.021	
25	18	" Wagon Wheel Gap			13.647	
26	19	" Alder			15.443	

423
 033
 400) 900 / 20 = 420

10000
 9320
 684
 333 / 2.31

400) 1017 / 880 = 1.370

400) 1320 / 1320 = 3.300

6748
 6153
 400) 1771 / 1.31

440
 1550
 1320
 2300 / 1.5

423
 033
 400) 900 / 20 = 420

8554
 7972
 400) 1822 / 1.3

400) 440 / 1.1

7972
 6748
 400) 1224 / 2.78

400) 880 / 2.2

400) 82100 / 205.25

400) 1224 / 2.78

400) 901 / 2.25

400) 880 / 2.2

400) 82100 / 205.25

400) 1224 / 2.78

400) 901 / 2.25

400) 880 / 2.2

400) 82100 / 205.25

400) 1224 / 2.78

400) 901 / 2.25

400) 880 / 2.2

400) 82100 / 205.25

